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Original Department.

Does Vaccination Prevent Small-Pox?

By William Young, Member of the Pharmaceutical Society of Great Britain.

DOES vaccination prevent small-pox? It may appear strange to many that such a question should be asked towards the close of the nineteenth century, nevertheless it is of vital import that it should be asked and answered, and that the answer should be dictated with a due regard to facts and the accumulated experience of the past eighty years. Your readers will agree that if vaccination rests on a true and scientific basis its power will be manifest at all times and places, and its truths, like those of astronomy, mathematics, chemistry or any other science capable of universal application. If, therefore, it can be shown, statistically and historically, that in any one country vaccination has failed to realize the promises of its discoverer its failure must be predicated of all other countries where it has been adopted. I propose, therefore, to consider how far it has effected the extermination of small-pox in the country of its birth, in the hope that a discussion of the subject may be promoted, and if it can be shown, as I believe it can be by many of your professional readers and correspondents, that a more excellent way of dealing with small-pox may be found, that such a method will be published in your widely-circulated GAZETTE.

PRELIMINARY.

The impartial student of history must bear in mind that the foe Jenner essayed to attack was no vigorous giant, but an expiring victor, a Samson shorn of his locks; for we have the testimony of the greatest and most accurate medical statistician of this country, Dr. Farr, that small-pox began to grow less fatal before vaccination was discovered, and as the only true test of the value of vaccination must be its power to prevent epidemics of small-pox, and no epidemic occurring until 1825, Jenner's theory could not be properly tested in his life-time, although it was amply disproved before his death by the occurrence of numberless cases of post-vaccinal small-pox of sporadic origin.

EDWARD JENNER,

who performed his first vaccination in the year 1796, laid down two propositions:

1st. "That cow-pox admits of being inoculated on the human frame with the utmost ease and safety, and is attended with the beneficial effect of

rendering through life the persons so inoculated perfectly secure from the infection of small-pox."

What language could be stronger? Here is no blowing the trumpet with an uncertain sound; no hint at any failure, any decline of the potency of his specific or of any recourse to that most recent fallacy of the faculty—re vaccination—but absolute protection is promised to the recipients of the mystic rite.

2nd. "That from its nature cow-pox must finally annihilate small pox." In his letter to the Empress of Russia he asserted that millions of lives would be saved; and in another to Lord St Helens, that the extirpation of small-pox would be quickly accomplished. By such assertions, incapable of proof and devoid of all rational probability, Jenner, aided by interest in high quarters, prevailed on parliament to vote him £30,000.

UNFULFILLED PREDICTIONS.

His predictions were not long in being falsified, for his biographer and friend, Dr. Baron, informs us that in 1804 reports of failures of vaccination had begun to multiply. Men of eminence, ability, and high social position in medicine and surgery—Moseley, Rowley, Birch, Goldson and others—as the result of patient investigation and ample experience, reported and published a host of authenticated failures, and of injury, diseases, and death produced by vaccination.

THE PROGRESS OF ERROR.

In 1807, the Royal College of Physicians, untaught by their former blunder of 1754, in giving their sanction to the mischievous and destructive practice of variolous inoculation (now made a penal offence) reported favorably of vaccination, thereby giving a fresh impetus to the novel and rival delusion. Small-pox then as now paid no heed to colleges, for in 1809 says Baron:—"Failures so multiplied that Jenner and vaccination were again put upon trial."

QUARTER OF A CENTURY.

What was the approach to the extinction of small-pox which had been predicted? Dr. Baron is compelled to admit that—"Small-pox was nearly as prevalent in London in the year 1825 as during any of the three great epidemics of the preceding century. Twelve hundred and ninety-nine persons perished in London in twelve months."

In 1838, 1839, 1840 small-pox, which, with the exception of 1825, had not prevailed epidemically since 1796, reappeared with renewed force and virulence, and in spite of vaccination which had been preached up from the pulpit and the press, and had been assiduously practiced by clergy, women, and doctors, killed in England and Wales, 35,833 persons. As on an average for every one who dies of small-pox, six are attacked, we have here evidence of 215,000 cases of that disease occurring in a country were a "sure prevention" had been in operation 40 years.

Lancet and lymph having proven inoperative, sought in 1853 the aid of the law. Then parliament, misled by statistics compiled to suit a foregone conclusion, by an obscure medical society, passed the first compulsory vaccination act, which has been rendered more stringent by the acts of 1867 and 1871. Have these enactments effected the extirpation of small-pox? No. Small-pox no more regards acts of parliament than it does the edicts of medical colleges.

A considerable mortality prevailed in 1863 and 1865, when, although vaccination had become much more general, the deaths amounted to 20,059; but the most crushing exposure of this pretentious fallacy was the epidemic of 1870–73, when, in spite of almost universal vaccination, the small-pox mortality of England and Wales rose to 44,840.

THE LATEST STATISTICS

which I shall adduce in support of my case, and which to every unprejudiced mind must demonstrate the utter failure of vaccination, are the following relative to London—probably the best vaccinated city in the world—for the last thirty years. Being taken from the Annual Summary of the Registrar-General for 1880, their accuracy may be relied on.

Decades.	Estimated mean population.	Small-pox deaths.
1851–60	2,570,489	7,159
1861–70	3,018,183	8,347
1871–80	3,466,486	15,543

Instead of having stamped out small-pox these figures prove that concurrently with the extension of vaccination there has been a great increase in the prevalence and fatality of small-pox, and call loudly for an inquiry into the whole system of Jennerism, which at present, owing to its enforcement by systems of direct and indirect compulsion, sits like a vampire on humanity and fully justifies the description given of it by Dr. Nettinger in the memorable and prophetic words:

"Scientiam propanasti,
Terram perdidisti,
Populum occidisti."

114 Victoria Street, London, England.

The Therapeutics of Tea and Coffee.

By F. E. Stewart, M. D., Ph. G., New York City.

TEA and coffee are used as beverages throughout the civilized world, and their effects have been studied with no little interest. The fact of their universal use has been employed as an argument to prove that man has a special need of them. But this can hardly follow, for a perfect development can be reached without their aid. That they affect the system, there can be no manner of doubt, but whether this effect is beneficial or otherwise has formed a subject of much animated controversy.

To prove the value of a therapeutical agent it is necessary to first observe the results of experience in its use. Guided by that experience, experiments may now be advantageously undertaken to prove the scientific reasons for the results attained, and to prove, or disprove the correctness of the observations which have been made empirically. The empirical and physiological researches with regard to the effects of tea and coffee have given them a comparatively certain and definite place as therapeutic agents. But more than empiricism and physiology was necessary to account for all of the actions attributed to them. Chemistry, however, has solved other problems pertaining to the study

of the properties of these agents, and some of the reasons why they act so differently at different times on the same person. What, then, does empiricism, physiology and chemistry teach us about the therapeutic value of tea and coffee?

The experience of those who use coffee and tea show us that they are stimulating in their action, and that coffee is more so than tea. Both are asserted by some to be nutritious, which may, or may not be attributed to the fact that they remove the sense of fatigue and hunger, and allay the mental unrest produced by exhaustion and anxiety.

If used to excess they derange the organs of digestion and cause acidity, eructations, flatulence, pyrosis, etc. Functional disturbances of the nervous system are also caused by their excessive employment, and headache, vertigo, tinnitus aurium, and confusion of mind are the results.

A cup of coffee after dinner facilitates digestion. Those who take a cup of coffee in the morning suffer with a headache if they neglect it. Coffee is a laxative, tea is an astringent. The use of either frequently produces wakefulness.

The above is what is taught empirically with regard to the effects of tea and coffee. But the reason why these effects are produced must be looked for beneath the surface of empiricism, and now science has before her the important question to decide. Chemistry and physiology are appealed to for the solutions. Will the chemical composition and physiological actions of tea and coffee account for the results of experience in their use?

Tea and coffee are stimulants. Chemistry tells us they both contain volatile oils to which their aroma is due; physiology teaches us the functions of the nervous system, and we know that volatile oils stimulate the nerves. Both tea and coffee are asserted to be nutritious. Physiology has revealed that the products of waste are eliminated from the system by the organs of excretion, and that much of this waste finds its way out through the urinary apparatus in the form of urea. Some agents are known to decrease the amount of urea eliminated. These agents are classed with the nutrients for that reason, though they do not necessarily take into the blood with their administration any considerable amount of nutritious material. It is said that tea and coffee decrease the amount of urea, and that, therefore, they belong to the nutrients. They allay mental unrest and remove the sense of fatigue. In doing so they but share with the other stimulants a property common to a greater or less extent to them all. Alcohol will do the same thing. Stimulants, as a rule, if taken in small doses, promote the appetite and increase the digestive power by stimulating the gastric follicles.

But if used to excess tea and coffee derange the organs of digestion and excite functional disturbance of the nervous system. This is also accounted for both chemically and physiologically. Both contain tannin. The mucus of the stomach plays the part of a ferment and acts on the starch taken as a constituent of the food, and it undergoes the acetic fermentation. This process is greatly facilitated by the presence of a quantity of weak alkaline solution. The eructations are gases formed by the chemical decomposition. The headache, vertigo, confusion of mind, etc., are the effects produced by over-stimulation of the nervous system.

A cup of coffee after a meal facilitates digestion, and those who take it in the morning suffer with headache for their neglect if they omit their ordinary cup. The effects of stimulants on the digestive functions have already been referred to. The stimulant also hastens the intestinal movements, and assists the morning evacuation, which, if retained, causes headache from the reflex irritation on the brain, due to the presence of fecal matter in the rectum.

Coffee is a laxative, but tea is an astringent. How can this be accounted for? It has been observed that the effects of tea and coffee are thus far identical, but in this they differ. As usually prepared, tea is subjected to long boiling, which extracts a large amount of tannin from the leaves. Coffee, on the contrary, is usually prepared by infusion, and is either not boiled at all, or is subjected to the action of water but a short time before it is used. The amount of the tannic acid present accounts for the difference of effect. There are other reasons, but this one is sufficient for the illustration.

The similar effects of these two beverages have also been answered by chemistry. Tea and coffee derive their activity not only from the volatile oil which they contain, but from a very important constituent known by the names caffeine, or theine. The effect of this alkaloid on the economy when isolated, is very similar to that of tea and coffee. Relative to its physiological action, Bartholow reports as follows:

"Caffeine, in small medicinal doses, promotes appetite, increases the digestive power by stimulating the gastric glands, and relaxes the bowels slightly. On the heart it exerts at first a decided stimulant action, and raises the arterial tension; but these effects are succeeded by weakened cardiac movements and diminished blood-pressure, the cardiac muscle, and its contained ganglia being both probably paralyzed by it. Respiration ceases before the heart stops in animals poisoned by caffeine."

"As regards the cerebral effects, it may be stated that, at first, drowsiness occurs; but this is soon followed by wakefulness, excitement, muscular trembling, confusion of mind, hallucination, and delirium. The cerebral effects terminate in deep sopor, but this is probably the result of exhaustion. Rise of temperature, convulsions, general paralysis, occur when toxic doses are administered to animals; but the temperature declines when paralysis supervenes."

The point of this article is to call attention to the importance of studying therapeutics as directed toward the drug. Every drug has activities peculiar to it, and therapeutics can never be a science, until the reasons for those activities can be accounted for. This can only be accomplished by first studying the drug empirically, then physiologically, and chemically. Physiological therapeutics are dependent on the knowledge obtained from empiricism to guide its researches, and chemistry is essential in the determination of the active principles of drugs, and their isolation, and individualized study.

Chronic Inflammation of the Neck of the Bladder; Its Causes, Diagnosis and Treatment.

By J. M. Blackerby. M. D., Milford, Ky.

PERHAPS there is no condition of disease presented to the consideration of the intelligent physician, relating to the urinating passages, and so little understood and investigated by the local country physician as the one under consideration. The very large majority of cases that present themselves for treatment to the investigating, experienced physician, are those that have hitherto been treated by some neighboring doctor, and quite frequently by some quack medicine man in the country, or by some young and as yet inexperienced M. D., whose practice has been too limited to have called his attention to the real nature and importance of the disease. The inexperienced practitioner in common with the ignorant quack is apt to refer the difficulty to that comprehensive cause "the gravel" which is held as the source of all urinary trouble by the people. And yet, the disease is by no means so rare or uncommon as to be overlooked if one is sufficiently experienced in its characteristics and symptoms to detect it. What are the symptoms? In looking for these it is necessary to investigate not only the local trouble of which the patient complains when he presents himself, but it is necessary to ascertain, as nearly as may be, the former status of the patient, as to his general health, his mode of life, &c. Has his life been active or sedentary; has he, in his occupation been exposed to long and severe cold; does he take a great deal of horseback exercise, and if so, what kind of a saddle does he use in riding; has he been in the habit of excessive venery? These and many other questions are necessary to enable us to form a clear and unmistakable diagnosis; as for instance, is he temperate, or does he use to excess alcoholic liquors, or does he practice masturbation, &c., &c. It is decidedly and imperatively necessary that we should insist on a clear and full expose of the answers to all the questions we ask in the investigation of the case, if we desire to benefit the patient and save our reputation in the eyes of the patient and community. Cold is held to be a fruitful source of this trouble, and perhaps justly so; but I am impressed with the idea that as a secondary result; at least, it is much more frequently attributable to horseback riding, especially on some kinds of saddle, than is commonly supposed. I have not infrequently been consulted for the trouble by persons engaged in some business requiring much riding and on inquiry am not surprised to learn that the saddle used is of such a form or construction as to press unpleasantly on the region of the prostate gland, thereby causing an undue excitement of the blood vessels supplying these parts and resulting in hyperæmia of the neck of the bladder. Prostatitis is another frequent cause of chronic inflammation of the neck. Any disturbing cause resulting in prostatitis, which, if not promptly cured, and perfectly so, is almost certain to leave behind a morbid condition that sooner or later attacks the sphincters and ultimately results in chronic inflammation of the neck of the bladder. This, however, may run on a considerable length of time before the secondary effect becomes troublesome; though it not infrequently happens that the resultant disease has assumed a troublesome, if not a painful character at an early period. I am of opinion from my observations in latter years, and especially when the disease affects the younger and unmarried class of patients, that it results more frequently from the disgusting and loathsome practice of self abuse than from any other one cause. If the physician is careful in his investigations, and if he thoroughly understands the symptoms, conditions and appearances that go to make up the physique of the onanist, he can scarcely fail at arriving at a proper solution of the cause of the trouble. This fixed in the mind, the careful physician can soon manage to gain the confidence of his patient, and then, confidently assuring him of the absolute necessity for his knowing all, everything pertaining to his past and present mode of life, to enable him to successfully combat his disease and make a perfect cure, he will generally have little trouble in learning all that is necessary to the formation of a correct diagnosis of the case in hand. I am not sure, however, that some of my most troublesome cases have not occurred in married men, who, possessed of so much of the animal propensity, have given way to their passions and indulged to such an extent as to produce the disease in its worst and most troublesome form. But while I have occasionally had such a case among married men, they have not been of nearly so frequent occurrence as among the former class; neither are they, as a general rule, so difficult to treat. Occasionally, we may, and I think, do come across a case resulting from a badly treated cystitis. This, however, seems an exception to the general rule; for, on the other hand, I believe that cystitis is generally to be attributed, or at least frequently so, to the trouble at the neck; and this I think true, but only in a case of acute inflammation of the neck. While I may concede the possibility or even the probability of such a result from chronic inflammation of the neck, I am far from believing that the occurrence is at all frequent, but indeed that it seldom occurs. I am not aware at present,—nor can I find in my case book—one clear case that I am willing to concede as resulting from cystitis. On the contrary, I have frequently witnessed and treated cases of cystitis evidently resulting from chronic inflammation of the neck.

There may be other causes leading to the production of the disease, but those named are the greatest factors in its production and propagation, and perhaps some one or several of them might be concomitant with some other cause in producing the result of inflammation of the neck.

In the diagnosis of chronic inflammation of the neck of the bladder, the practical physician can scarcely be mistaken if he has given the disease that attention its frequency and painful character, and troublesome and disagreeable nature require. First and most prominent among the symptoms is the urgent desire to urinate, coupled with that burning or scalding sensation immediately before and in the act of voiding the urine, which I have found to be constantly present; and this symptom is, in the progress of the disease, conveyed more

or less intensely along the track of the urethra for some distance, but seldom, in my observation, passing the middle of it. Indeed the pain is so acute at times as to cause the patient to grasp something and to hold on as though he would rise from the ground, while the urine would scarcely start, or when started would only dribble from the penis, suddenly stopping to be renewed again by another spasmodic effort. After the disease has progressed for some time it is next to impossible for the patient to completely evacuate the bladder without using the catheter—which I am in the habit of advising to be done at least once a day—that the bladder may be completely emptied, thus preventing the too long retention of some of the urine. Another and important symptom attending chronic inflammation of the neck, is a fullness and tenderness on pressure with slight dull and heavy aching, which, though it subsides in a measure when the pressure is removed, is more or less continuous, though not severe. If the bladder be not completely emptied of its contents at each effort to micturate, the patient is greatly annoyed by a dribbling of the urine for some time after the effort, and in some cases, and especially in those of long standing, he will, in all probability, be more or less troubled all the time until the disease is overcome by proper treatment. Coupled with this symptom is a peculiar odor of the urine, more especially in old cases, or cases of long standing, a feeble smell of putrescence, one I cannot well describe, but when once recognized is not readily forgotten. This peculiar odor I am in the habit of attributing to the too long retention of some part of the urine, which should have been voided or drawn off with the catheter. I think I can not be mistaken in this feature of the case, from the fact that whenever I have succeeded in having the patient completely empty the bladder, either naturally or with a catheter, in a short time I have found the odor of putrescence to diminish and soon to disappear altogether, with little or no medication. In this connection I may say that in cases of long standing the patient will frequently complain of pain of a dull nature in the lower part of the legs, especially just below the knees and in the calves of the legs, and occasionally across the hips. These pains are far from constant, but I hold them peculiarly symptomatic in old cases. While they are very troublesome to the patient when sitting, they seldom give him much pain while walking, unless he taxes his power too severely.

The treatment of chronic inflammation of the neck of the bladder has not proven satisfactory in many respects. Whether from the failure of the drugs used, or from the fact that patients tire from protracted and continued use of remedies and cease their use, or whether it be from an incorrect diagnosis in many cases, I am unable to conclude. In later years I have had more satisfactory results; have treated more cases with better results and fewer disappointments. For many years I used almost every remedy recommended internally and externally, occasionally succeeding, but frequently failing; perhaps my failures are more numerous than my successes. I shall, therefore, content myself with some allusions to the remedies more recently used and their manner of administration, without reference to many of those in use at an earlier period in my practice. In cases where I find the urine scant, scalding and difficult to void, I place great reliance on the stigmata of maize, fluid extract, administered in syrup or sweetened water as often as three or four times a day. After using the corn-silk two or three days, and when the tenderness has partially subsided, I introduce the catheter after micturition, and remove whatever of urine may be retained in the bladder, and I do this—or instruct the patient how to do it—as often as once a day until the act of voiding will completely empty the bladder. If there be present any spasmodic symptom at the neck, attended with sharp and keen pains, I alternate the treatment with the tincture of elaterium, in very minute doses, twice or thrice a day. I have found the elaterium one of the most satisfactory agents, in cases in which it is applicable, that has come under my observation; and all cases of a neuralgic character seem to call for the elaterium. In its administration we cannot be too careful, as by its harshness and great activity we may injure the patient. My manner of using the drug for several years is to add to ℥ jv of water, tr. elaterium, ℥ ss–j and tr. opii. camph. ℥ jv—vj; dose half to one teaspoonful twice or thrice daily, continued as long as the acute pain in micturition continues. It is best, and indeed I think it necessary to repeat the the medicine frequently during the treatment, and not to leave it off too long nor too soon. With the addition of the paregoric to the compound, I have not had the elaterium produce any purging, and seldom any sick stomach, though the bowels are usually kept in a loose state and therefore seldom require other medicine for that purpose. I do not find it best to continue the drug too long at a time, but intermit it two or three times, for a day or two at a time during the taking of a four ounce bottle full, after commencing with the second or third bottle. This treatment I now supplement by the addition of the fluid extract of black haw, which seems in many cases to have a soothing effect on the parts involved, and especially in cases of old persons, when impotency is a factor or a result. This treatment I adopted a few years since, from the benefit derived in a case I was then treating, it being that of an old man. After I had treated the case for some time, he said that his virile powers were at a very low ebb, and he would be glad if I could do something for him in that way while I was treating him. I thought I would see if the viburnum was possessed of power to give relief in that direction and accordingly ordered it. In a short time the patient was aware that the new remedy was benefiting the original disease. I continued its use in his case until he was cured, and in a short time his virility was normal. If it was not the viburnum that added virtue to the treatment before adopted, what was it? So I reasoned, and continued to use it in such cases as I believed it would or might benefit and have found no grounds for complaint. I do not hold it applicable in all cases, but in such as it seems applicable to, I deem it a reliable and satisfactory remedy, and one I am much pleased with.

Another most valuable remedy in this disease is the rhus aromatica. I have recently been much pleased with the action of this drug in my hands. In many and well selected cases of chronic inflammation of the neck I find it very prompt and far more certain than are any of the older drugs; but like the viburnum its adaptability seems to be to certain conditions, and I think I have discovered that in such, and many cases where viburnum would be of little or no avail, the rhus gives complete satisfaction. These are the remedies I usually rely upon at present in the treatment of the disease in question, as alteratives of condition, but frequently find it necessary to resort to an opiate to quiet nervous irritation and excitement. I have generally used morphia for this purpose, but object to it on account of its tendency to constipate the bowels. Lately I have used Jamaica dogwood with good results, and for most cases much prefer it to opium or its salts. This is a disease, however, that seldom requires the use of opiates.

In the treatment of chronic inflammation of the neck of the bladder, the proper regard to diet is of the greatest importance. In all cases the patient should be urgently warned against the use of gross food. Salt meats, fat bacon, no matter how cooked, should be entirely prohibited. Coffee and tea are in all cases to be forbidden, in fact, any article that may have a tendency to excite irritation and inflammation should be strictly prohibited. I usually recommend the free and liberal use of the esculent vegetables, in fact, all vegetables of whatever kind the patient may be able to command; indeed, I wish my patients to become for the time vegetarians. Milk should be the principal drink, and freshly churned butter-milk, in my estimation, is preferable to sweet milk, though either is far better than tea or coffee. When convenient I permit my patients to partake of a cup of chocolate at breakfast; but to use butter-milk, clabber or sweet milk at each of the other meals. I am in the habit of advising my patients to drink freely of tolerably fresh butter-milk between meals in the place of much water; but do not prohibit the use of that indispensable article by any means, though I am careful to insist that the water used shall be as far as possible cistern water in which is steeped enough elm bark to render it slightly mucilaginous. All spirituous, vinous, or malt liquors are to be entirely prohibited. If I find in the treatment of a case that I cannot control the appetite of my patient in that direction, after a thorough but kind remonstrance and admonition, I dismiss the case, and under no circumstances will I consent to treat him if I cannot be obeyed in my instructions.

I am very positive when I say that a proper and strict regimen is all important to success in the cure of this troublesome and painful disease, and I doubt very much if a cure can at all be made while the patient persists in the continued use of spirituous liquors. I had intended to offer the treatment of a case or two in this article, but find I shall extend it too far, and take up more of your valuable space than may be desirable. At some future time, perhaps, I may do so, and for the present close this paper.

A New Vaginal Dilator.

By R. A. Walker, M. D., West Monterey, Pa.

IN no department of the physician's work does he meet with so many disappointments or find so much dissatisfaction among his patients as in the treatment of vaginal diseases. The difficulties to be met are many: First. The majority of women when they consult a physician expect him to render immediate relief (and in chronic diseases this is impossible). If he fails, which he surely often will, they at once depart to begin anew with some other doctor who makes fairer promises. Again, those who are willing to continue the treatment longer usually give up in disgust after deriving little or no benefit from a long series of applications. This last failure is mainly due to the kind of instrument used in applying the washes to the parts. As a rule physicians request their patients to get one of the ordinary rubber bulb syringes with small tube to be used for the above purpose. They do this not only because it is customary, but because they have no other instrument to recommend.

All these difficulties have been successfully overcome by the introduction to the profession of "Walker's Vaginal Dilator" for syringe attachment. This instrument, although only recently brought out, has the endorsement of some of the best known gynæcologists of the country. Its utility can readily be seen from the fact that it completely dilates the folds and holds the vaginal walls away from the barrel of the instrument, allowing the washes which find exit from holes along the entire length of the barrel of the instrument to dash against the walls and thereby more effectually wash off the viscid discharges, which in the main go far toward keeping up these vaginal troubles by being confined among the folds, and from their acrid nature causing irritation and often inflammation. No part of the vagina can possibly escape being reached by the solution when this instrument is used. This point alone fully recommends the dilator, as then not one half the time will be required in treatment and better results are obtained than by the use of the ordinary small tubed syringe.

The dilator is readily attached to any of the various styles of rubber bulb syringes, and from its simplicity, strength and durable make-up is well calculated to meet with favor.

Physicians who desire to treat this line of diseases successfully and give their patients the benefit of the latest surgical appliances, will not be without this new and valuable instrument.

Xanthium Strumarium.

By Chas. L. Gwyn, M. D., Galveston, Texas.

A COUPLE of years ago I sent you a paper on the cocklebur to which I see you make reference in the discussion upon that subject. At that

time I thought that I was giving the profession new uses for that remedy, but upon looking over an old file of the Transactions of the Texas State Medical Association, I find it mentioned in a report on the Indigenous Medical Resources of the State, by Dr. A. R. Kilpatrick, of Navasota (8th annual session, 1876.)

As the article includes everything that your correspondents claim for it, I will copy it for their benefit:

"Xanthium strumarium, or cocklebur. This plant or weed, is so well known to everybody that any description of it is entirely unnecessary. But I must express my objection to the term xanthium, which means yellow, as it is not descriptive of the weed, it being intensely green in all its parts, in the growing state. Uses: It is a prompt and speedy vesicant, and if the leaves are rubbed a little on the skin, there follows a very unpleasant burning sensation, with redness. In order to obtain its vesicant effect, take enough of the leaves or the whole plant, mash into a pulp and apply to whatever part you desire to vesicate and in a short time a good blister will be made."

As an antidote for snake-bite, you may apply the juice of the plant to the bite and also drink a tea made of the leaves by boiling them in water. Bites of spiders, tarantulas and centipedes or any insect, are rendered innocuous in the same way."

"As a styptic to fresh cuts, it is as good as many other of our remedies."

"To arrest hemorrhage from the uterus, lungs or stomach, the expressed juice applied topically or drunk, acts well and promptly, unless there is a decided hemorrhagic diathesis in the patient." This fact has been announced before this association on a former occasion, and I have tested it by careful trial."

In all affections of the kidneys or bladder; in dysury, strangury, scalding urine, bearing down and painful micturition, or where there is phosphatic or other urinary deposit, they are all amenable to its beneficial influence. Take a handful of the leaves, green or cured, and put them in a quart of boiling water and when a decoction is prepared, drink a half cupful, or more, every half hour or hour, until relieved; generally not more than three draughts are required. I will suggest further, that a tincture of the leaves may be used with the same happy results. In order to secure its full power, the tincture had best be made from the green leaves."

Stigmata of Maize in the Treatment of Gravel.

By Sampson Pope, M. D., Newberry C. H., S. C.

ABOUT four months ago Hart Caldwell, a negro, about 42 years of age, applied to me for treatment. He was suffering from what he termed gravel. Upon examination I found that he had pain in the back, hips, and posterior part of the thighs, difficult and painful micturition, the stream of water small and sometimes interrupted. The pains were at times excruciating, at others not so severe, but at no time was there an entire absence of pain. I did not sound him for stone, for which I am now very sorry. I placed him upon the usual remedies, buchu, hydrangea, mistletoe, etc., but without avail. After two or three weeks there was placed in my hands a sample of stigmata of maize, and I determined to give it a trial. I placed him upon the following prescription:

℞ F. E. Stigmata of maize
Gin., ℥ i.

M. Sig. Teaspoonful three times a day.

The patient commenced improving and is now entirely well. He had only to repeat the prescription once. After taking the remedy for a few days he commenced passing particles of a calculus, and continued to do so for several days. Since that time I have prescribed the same remedy for a boy 6 years old, with a like result, and I now believe that the stigmata of maize possesses the power of dissolving calculi, certainly the softer kinds. Should another case present itself I shall prove it by sounding and ascertaining the presence of stone before using the remedy.

Elixir Iodo.

By O. Millard, M. D., Flint, Mich.

UNDER the name of 'Elixir Iodo," said to be a chemical compound and patented in July, 1872, we were struck with the utter inconsistency of the specification and claim of the patent, and also disgusted with the loose way in which that portion of the patent office at Washington pertaining to chemistry is run. Henry A. Tilden, in his specification states that the iodide and bromide produced, are combined with chloride of calcium, and is based upon certain reciprocal chemical equivalents; and further on, in the same specification, he states that he does not limit himself to the precise proportion of the iodide, bromide or chloride.

If the compound was based upon the known laws of chemistry and upon certain reciprocal chemical equivalents, it would be impossible to change their proportions *ad libitum*.

The real fact of the matter is that Mr. Tilden exposes his ignorance of chemical law in the specification, which in itself is prima facie evidence that no chemical compound of the kind has been discovered, but in its stead a mixture, such as any physician might chance to make in a single prescription at any time. The gentleman states that he has *invented* a new and useful "chemical compound." Isn't that cheek? *I invented!*

The first man who made a barrel of common salt (chloride of sodium) by evaporation must have *invented* the same chemical mixture if he made the salt at Saginaw.

The "iodo" is not a chemical compound any farther than the individual salts are concerned; taken as a whole it is a *mixture* of chemicals. Iodide and bromide of calcium, iodide and bromide of magnesium do not unite chemically with chloride of calcium, and the amount of cheek necessary to make the claim staggers us.

Translations.

[This department is devoted to translations from our foreign exchanges, and will embrace articles from some of the best German, French, Spanish, and Italian writers. The articles marked with the initials P. P. G., are translated by P. P. Gilmartin, M. D., of Detroit.]

The Question of Patents, Trademarks, and Copyrights Once More.

We had supposed that the thorough ventilation which these subjects had received for some time past rendered any further discussion of the topic entirely superfluous; but, it appears, we have been laboring under an erroneous impression, for we notice that this metaphorical scarecrow is still set up to startle us in certain pharmaceutical journals, and we have concluded to add one word more to what we have already said, and, once for all, dispose of the matter. Apothecaries assume as such a two-fold character: that of professional men engaged in a scientific study, and, again, that of mercantile individuals. Physicians can only judge of the merits of this question from a scientific standpoint, unless they themselves happen to practise the pharmaceutical art. Chemists, on the contrary, rely upon the protection of patents, without which the most meritorious works of mankind, whilst doing great good at large, still would yield small return to the original discoverers or investigators.

Now, the peculiar mercantile aspect of the apothecary's art is shown in his role of tradesman. He cannot complain of this sphere of action, since the public looks for preparations distinctively patented and protected by trademarks, or guaranteed by copyright. This is, it must be admitted, an evil; but, its removal would be surrounded by such formidable difficulties, that, practically, we cannot, for the moment, enter into the consideration of it. The question of prescriptions, however, is quite another thing. It is in these, as well as in the purchasing and examination of the necessary materials and apparatus belonging to his calling, that the scientific and technical accomplishment of the apothecary is to be estimated. He must adhere to fixed precepts and principles, which are based upon strictly scientific investigations, easily divisible, however, into two classes: those that deal with recognized officinal preparations, and, secondly, the new and old, but non-officinal preparations.

The officinal preparations are naturally those which are held in the highest esteem by the physician; they have been selected by the physician and apothecary jointly; their selection and preparation have been fixed and arranged through their mutual co-operation, and it must strike one as a great in consistency on the part of so-called prominent physicians, who have contributed to the formation of our pharmacopœia, that they should with their own hands throw upon the market non-officinal preparations, which the members of the commission on the pharmacopœia did not, for excellent reasons, venture to burden it with.

These people boast, in a very ostentatious way, of their Code of Ethics, and do not hesitate to violate this strangely chimerical Code just so often as it suits their pockets. In every instance, in which officinal preparations, and those of an established formula are prescribed, the apothecary is justified in dispensing his own preparation without paying any attention to the firm's name that may be attached to the physician's prescription. If the sense of duty or propriety in this regard is not respected, then the entire motive and method which brought our pharmacopœia into existence, have been simply a farce, and afford an opportunity for respectable attempts at questionable private profits —a kind of mutual admiration affair, as it were. Of course, it is far other wise with non-officinal preparations, new remedies, which have found their way into professional use.

We maintain, notwithstanding repeated contradictions, that if it had not been for unremitting study and investigation, the status of the apothecary, in pharmacy and chemistry and related branches, would never have reached its present high degree; that, furthermore, a stand-still in inquiry means not only no advance, but even retrogression, and, hence, everything new that is submitted to us from trustworthy sources for examination, merits our closest attention, and should be discarded as worthless only when it is clearly shown to be such. Our pharmacopœia, at present, is subjected to revision every ten years, and any new remedy, if it be found efficacious, is accepted in the interval as quasi-official, until it is finally incorporated into the materia medica as officinal. Patent medicines, that is, those which are protected by a regular patent, deserve the recognition of physicians and pharmacists only when some genuine value has been discovered in them by experience. When, on the contrary, Smith, Brown and Jones patent some arbitrary combination of existent or non-existent substances, and such a "mixture" is forced, by legitimate or illegitimate means upon credulous physicians and apothecaries, such action merits marked reprobation on the part of both professions.

A great portion of the blame attaches to the U. S. Patent Office, whose examining commissioners grant, in a most frivolous manner, patents upon things, which every competent judge would pronounce pure humbugs.

Indeed, such patents are utterly worthless, as has been repeatedly decided in the affirmative. To sum up, then, the following principles, to which we should firmly adhere, flow from these remarks:

A patent medicine should be prescribed solely when actual experience, through the investigations of the owner of the patent, has shown its remedial value.

In such a case the patentee surrenders his discovery to humanity for common use and claims in return a certain percentage on sales for a period not exceeding 17 years.

Other remedies, even though really patented, should be ignored by all physicians and apothecaries, in so far, at least, as these last are not bound in their character of trades-people, to deal in them.

Trade-marks are intended to serve only this purpose, namely, to distinguish, as authentic, articles that come from an establishment which has created a demand for its productions on account of some assumed excellence. The application of this principle to pharmaceutical preparations, is, even when allowable according to law, deserving of condemnation. We endeavor, by all means, to make

solid business men as well as men of science of our students. We have schools of pharmacy in which everything is taught that can contribute to the attainment of this end. With every possible qualification, intellectual and otherwise necessary to the proper fulfillment of the duties of their vocation, they enter upon their life-work, not as dealers in articles protected by trade-marks, but to be able to turn to practical account, abstract science and its applied forms. One does not pursue his studies with the view of spending the best portion of life, with little profit to one's self, in the leading strings and under the tutelage of manufacturers, and for their sole interest. Trade marks and everything of an analogous nature, are simply nonsensical so far as they extend to strictly pharmaceutical preparations.

Copyright, that is, legal protection extended to the author of any book, essay, correspondence, picture or label, etc., against counterfeit editions or imitations, has been already justly settled. Intellectual creations deserve at least as much protection as material productions. They can scarcely be said to be commercial articles in the same sense as other articles to which the protection of patent laws is extended. Copyright, moreover, rarely does any injury to the retailer. An apothecary or physician can always register a copyright upon a label. That, however, need not prevent competitors from selling the same article, so far as this may be described by a particular label of its own.

Although the practice of prescribing and dispensing articles objectionable under the above rules cannot be entirely disregarded, the physician should, at least, in the maintenance of the respectability of his profession, be careful not to direct their employment; the apothecary, for the same reason, should enlighten the physician and the public as to the character of these secret remedies—for they are all such, the descriptions of the patent never reaching the outside world—and thus remove as much as possible such prolific sources of mischief. —*Deutsch-Amer. Apotheker Zeitung.*

P. P. G.

Damiana.

The use of damiana as a domestic remedy for invigorating the nervous system dates from a distant period in its home, Western Mexico. Indian hunters were accustomed in times of great drought and after wearisome journeys, to refresh exhausted nature and prepare themselves for further fatigues by indulging in copious draughts of a decoction of this shrub. The properties of damiana did not long remain a secret, and it soon became familiar to the rest of the inhabitants of Mexico, and rose, indeed, to such high repute, that the people began, at last, to place more faith in this plant than in physicians themselves, going even so far as to use it as a remedy for all diseases.

The manner in which the natives prepared it was quite simple: they macerated the leaves in water, added sugar to the preparation, and thus obtained a drink so agreeable that it was taken instead of tea or coffee, and was intended, at the same time, as a measure of prevention against any possible attacks of illness.

As early as 1699, it was learned through the chronicles of the Spanish missionary, Juan Maria de Salvatierra, that damiana was employed by the natives of Mexico as a remedy in impotency and to empower them to perform the sexual act. It is for this purpose, principally, that this plant has been administered by Mexican physicians up to the present day. It was not, however, until 1874, that the drug was introduced into the United States, and Dr. John J. Caldwell, of Baltimore, is credited with having first closely studied its action and made its virtues as a powerful aphrodisiac known through medical journals.

For the botanical description of the plant which yields damiana, we are indebted to Prof. Lester F. Ward. This naturalist recognized in it a new *turneraceæ*, and, in view of its special application, he denominated it *turnera aphrodisiaca*, furnishing, at the same time, the Virginia Medical Monthly, (April, 1876, p. 49) with a paper upon its peculiar distinctive qualities.

As soon as this journal reached the botanists of Europe, Britten re-published this descriptive article in his Journal of Botany (New Series, Vol. IX, 1880, p. 20). Through these agencies, as well as the Biology of Central America (Contributions to the knowledge of the Fauna and Flora of Mexico, Central America, edited by Godman and Salvin; Botany, by W. B. Hemsley, vol. I, p. 474), in which this plant is likewise mentioned, though only by name, our knowledge has been gained of the existence of this species of *turnera*.

After I had collected from all the larger European museums, with the exception of the English, materials for an enlarged and detailed monograph upon the whole family of the shrub, I was somewhat surprised to discover, amidst all these numerous available specimens coming from Mexico, not one which answered, even in a measure, its characteristic botanical definition. Desirous of securing the drug, I addressed myself, simultaneously, to the firm of Gehe & Co., in Dresden, and to Parke, Davis & Co., in Detroit, Michigan, and received in return, from the Messrs. Gehe & Co., samples of *turnera aphrodisiaca*, which agreed, in the most accurate manner, with the description of Ward; whilst the house of Parke, Davis & Co. favored me, in a most charming spirit of kindness, not only with similar specimens, but also with a second species, originating in California, which is represented as coming from *turnera diffusa, Willd.* This consignment was accompanied, at the same time, with descriptive circulars, sent by this energetic firm, which contain all that is essential, respecting the history, therapeutic use and action of the drug.

Genuine damiana, such as is derived from *turnera aphrodisiaca* and *turnera diffusa*, appears in commerce in the form of leaves and young shoots, with which flowers, fruit or portions of fruit, seeds, and even old branches are variously mingled, and possess a fragrance that reminds one of lemons, combined with an aromatic flavor. It readily gives up its constituent properties to hot water, or a mixture of alcohol and water.

Distilled with water, it yields an ethereal oil, strongly impregnated with the characteristic odor of the plant (*extractum turneræ aphrodisiacæ*). It is this fluid extract, principally, which is prescribed in nearly teaspoonful doses *ter in die*. Damiana is

used, also, in the form of solid extract, pills and elixir. Its bitter, somewhat acrid taste makes it unpleasant to many patients, and occasionally, the extract causes nausea, even vomiting, particularly in empty stomachs. Physicians, therefore, prescribe it frequently in combination with equal portions of glycerine and syrup of tolu, or some fruit syrup. Some, in order to conceal its taste, direct it to be taken in wine or beer.

All these preparations of damiana exercise a powerful influence upon the urinary and generative organs of both sexes; they increase the flow of urine and arouse and invigorate the lost or enfeebled power of procreation. Where the sexual instinct, as a consequence of injury to the spine, paralysis, onanism, or other undiscovered reasons, has been impaired or entirely lost, and the ordinary remedies, such as strychnine, phosphorus and electricity, prove inefficacious, damiana, if continued for two or three months, gives invariably, reliable and enduring results. Indeed, Dr. Woodward, who has had much experience with the drug, ventures the assertion, that, if there is any one medicine that can restore the generative function in persons of advanced years, either male or female, that agent must be sought for in damiana. Moreover, this new remedy possesses a qualification not found in strychnia and phosphorus, namely, it is not poisonous or otherwise injurious. As to the special action of damiana, American physicians are unanimous in the opinion, that the brain and nerves, and indirectly, the reproductive organs, are markedly influenced by it, but, whilst some assert that the sexual appetite is excited by it in a special and direct manner, others are inclined to think, and amongst these, Dr. Woodward, that we have here a stimulating and tonic remedy rather than an aphrodisiac proper.—Dr. Ig. Urban, in *Archiv. des Pharmacie, Zeitschrift des Deutschen Apotheker Vereins.* (Continned in our next.)

P. P. G.

The Physiological and Therapeutical Action of Cocaine.

In a preliminary communication, which appears in the Transactions of the Royal Institute of Lombardy (D. Med. Zeitung, No. 12, 1882), the Drs. Morselli and Buccola, report some observations upon the action of cocaine in cases of enfeebled powers of mind.

This agent was exhibited in simple melancholia and melancholia con stupore, without fixed delusion, in doses varying from 0.0025 to 0.1 gramme, injected hypodermically, care being taken to administer it in the hours intervening, between meal times. The authors have noted dilatation of the pupil upon the introduction of very small quantities of it into the eye, which lasts for some hours, but which does not appear in so decided a manner, nor so rapidly, as after the employment of other mydriatics; nor is it noticed in instances, such as are found in many forms of paralysis, where the mobility of the iris has been injured by some affection of the brain.

The temperature indicates, now and then, slight feverishness, 38 G. to C.; respiration is somewhat hurried; the pulse becomes quick and frequent; at times a dry cough is present. But it does not appear that the nutritive functions were especially influenced.

The physical changes which, according to Mantegazza, are said to follow the use of coca leaves, and which should manifest themselves in invigorating the nervous system, enlivening and quickening the imagination and fancy, with subsequent sleep, and no diminution of the mental powers—cannot, even assuming that these views are confirmed, be attributed to cocaine, but rather to some other proximate principles resident in the leaves. Cocaine, in doses of 0.1, did not betray any marked or immediate effect upon the intellectual processes, though, to be sure, the mental faculties of the patients under treatment for melancholia were but slightly developed.

The therapeutic action of cocaine and that of the coca leaves are not yet determined with sufficient accuracy. It appears, however, upon the testimony of these observers, that on the continuous administration of cocaine for two months, in judiciously increased doses, from 0.005 to 0.1 grm., an amelioration in the mental condition is noticed, together with an improvement in the insomnia, and absolute listlessness, characteristic of melancholia, and these favorable features are undoubtedly to be ascribed to amendment of the nutrition. P. P. G.

Defibrinated Blood.

Dr. Desiderio Varela gives in El Genio Médico-Chirûrgico, of Mexico, an interesting instance of the efficacy of defibrinated blood in anæmia, in which it was used in the form of enema.

The patient was a young woman 20 years of age. Every symptom pointed, diagnostically, to the nature of the disease from which she was suffering. Her color was waxen; her lips and the mucous membrane were bloodless; there were present palpitation and præcordial distress, with a tendency to syncope; the blowing murmur accompanying the first sound was perceptible at the base of the heart and prolonged into the carotids; she complained of cephalalgia, etc., and there was superadded an utter repugnance to food. All of these rational and physical features served to establish a state of cachexia, which made it impossible to confound the anæmic condition with any other, whether studied by the analytical or the synthetic method.

Every known preparation of iron and tonics had been tried in vain, and, at last, the situation became such that it was determined to adopt the procedure recommended in like cases by Drs. F. E. Stewart and A. H. Smith, of New York, namely, enemas of defibrinated blood. Transfusion was left as an ultimate resort.

As, however, the function of the stomach was almost entirely suspended, and the patient could only tolerate a small cup of broth and a tablespoonful of wine every three or four hours, treatment began with the injection into the rectum, every three hours, of two ounces of fresh bullock's blood, defibrinated and warmed by means of the water-bath. Contrary to expectation, constipation supervened, instead of irritation of the bowels being produced, and the treatment per rectum was continued under careful observation. A quantity

of blood was therefore introduced by that channel amounting to four or five ounces in the 24 hours. On the third day a favorable change was noticed; the pulse, usually much accelerated, showed signs of modification, and the patient, in a general way, impressed those about her with the idea that "life, indeed, was returning." About the fifth day the stomach became tolerant of light food and a favorable prognosis was ventured upon.

The number of enemas daily was diminished, thereafter, in proportion to the encouraging evidences of reaction, and, on the eighth day the patient felt sufficiently improved in strength to sit up; and, by the twelfth day from the inception of this form of treatment, all rectal alimentation ceased. For some time after, however, it was deemed advisable to continue the ferruginous preparations, and her condition was such at the end of the month that she did not hesitate to devote herself to her household duties. She had gained considerably in weight, and since then has not had occasion to solicit any further advice.—*La Escuela de Medecina, Mexico, March*, 1882.

[Note by Translator.—The therapeutic use of defibrinated blood is due to the simultaneous, though independent investigations of Drs. F. E. Stewart and A. H. Smith, of New York, in 1878–9. This method of supporting treatment, recognized as rectal alimentation, is now very generally adopted. In the state of desiccation—sanguis bovinus exsiccatus—suggested by Dr. F. E. Stewart, and manufactured by Parke, Davis & Co., according to a special process,—this valuable adjunct to therapeutic agents has been thereby immeasurably increased in availability and usefulness.] P. P. G.

Gurgun Balsam.

Vidal recommends gurgun balsam in vaginitis and urethritis. In the first, he uses an emulsion of equal portions of the balsam and lime water, with which he saturates tampons.

In the second form of disease, he directs an emulsion of 4 grammes of balsam and gum arabic and 40 grms. of water, to which are added 24 grms. syrup. The patient takes one-half of the preparation before breakfast, and the other half before dinner, drinking, at the same time, a small glass of Malaga wine afterwards. In three or four days pain disappears, the discharge perceptibly diminishes, and the cure is accomplished on an average in two weeks. In vaginitis, the healing process sets in from the sixth to the tenth day.—*Gaz. des Hop. and Schmidt's Jahrbücher.*

P. P. G.

Treatment of Erysipelas by a Frog.*

Since the year 1865 I have had occasion to treat erysipelas by the application of frogs. In a late case—a man over 40 years of age—with erysipelas of the head and neck, and the symptoms very grave, at the end of three days' medication with the usual remedies, no improvement had taken place. The pulse went up to 120; the respirations 41; anorexia complete; swelling of the glands of the neck very great; and fearing meningitis, I had recourse to the application of a toad. The fever soon commenced abating, and the next day the pulse indicated 93 to the minute, respiration 38, swelling decreasing, and other symptoms improving. In four days the recovery was complete.—Dr. Rodiguer in *Union Medecal de Venezuela*, March, 1881.

[Note by Translator.—One case, successful or unsuccessful, proves nothing, but the use of toads in stone bruises and boils is often resorted to in the Southern States. The abstraction of heat by toads (cold blooded) furnishes the cause of the cures.]

Correspondence.

A voice from the South on the Trade Mark Question.

At my request you very kindly sent me a sample copy of your Therapeutic Gazette.

I am much obliged, for it has proven interesting by giving me sound ideas upon the difference between patent medicines and trade marks; the former of which I detest with my whole nature.

"The Richmond resolution" must meet with the approval of all gentlemen in the profession who have the interest of the science, and the welfare of their patients at heart.

I shall not attempt to discuss the subject, for this has been freely and fully communicated in The Gazette, the reasons for your position elaborately proven, and all opposition thereto completely shelved.

My sole object is to congratulate you upon your successful defence of scientific pharmacy, which is inseparable from scientific therapeutics. It is to be deeply deplored that we have not others in pharmacy who sustain the very enviable position of P., D. & Co. for the honest manner of preparing their medicines, and the perfectly reliable operation of those remedies upon the animal economy in disease. The name of P., D. & Co. is a synonym for honesty and fair dealing, and the physician feels when prescribing their preparations that they are not working in vain, and even where hope of life has almost fled, we give them fully assured that if there is any recuperative power left, that they will aid that power and bring about speedy convalescence.

You may consider me a subscriber, and I will forward the subscription by the time of the next journal's arriving.

D. P. Duncan, M. D.

Waynesboro Ga.

Poisoning by Rhus Toxicodendron.

Editor Therapeutic Gazette: Will some of your many able contributors give us, through the Gazette, the best remedies as antidotes to the poison of rhus toxicodendron? I should especially like to hear from some one who has himself been poisoned by coming in contact with the leaves or vine.

J. M. Haralson, M. D.

Slagle, Mo., May 2, 1882.

The Therapeutic Gazette

WM. BRODIE, M. D, Editor.

F. E. STEWART, Ph, G., M. D., Associate Editor.

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POSTAGE EXTRA.

Does Protection Protect in the Vaccine Sense?

THERE is scarcely any relation of life where the fateful element of doubt may not, at some time, enter in to shake and even to shatter, or, more happily, to confirm our faith. It assumes as many shapes as the mythological Proteus, but its dread presence is always recognized and never fails to excite the inevitable conflict of thought and opinion.

Now, this form of interrogation is a laudable characteristic of the modern school of positivists, and though the traditionary and moss crowned fallacy, that physicians are the incarnation of the spirit of dissension, yet finds pious acceptance, it will occur to the thoughtful reader, we believe, that diversity of opinion prevails still more alarmingly amongst sectaries, and, as to the profundities of the law, the litigious world will bear witness, that "the people still walk in darkness" concerning their correct interpretation. Doubt, then, must be admitted to be an important factor in the serious moral and physical deliberations of active humanity, and is, confessedly, not without its commendable features. It is, in fact, as we have hinted, a recognized method amongst philosophers who study particularly to extend the domain of science, and if we could dismiss our instinctive apprehensions of its purpose in questioning our cherished beliefs, we should have no difficulty in perceiving, therein, an implied benefit to mankind in its progress towards a fuller intellectual development. We might, indeed, accept Matthew Arnold's beautiful expression of "sweetness and light" as bearing not inconsistently upon this optimistic view, if it were not that, whilst the *dubium methodicum* may lead to "light" it is, in the perverse order of things, singularly inapplicable to the development of "sweetness."

The fancied security with which the conservative votaries of vaccination in this country have entrenched themselves in that doctrine and practice, will, therefore, be rudely disturbed, we fear, when they learn, that there exists a "London Society for the abolition of compulsory vaccination," and that this organization contemplates and embraces not alone the radical motive emblazoned upon its ensign, but comprehends, likewise, in its *raisons d'être*, an expressed desire to diffuse knowledge concerning vaccination and to maintain, in London, an office for the publication of literature relating to vaccination, which shall be, also, a centre of information and action.

It is distinctly averred, however, to obviate any unfavorable logical inference, that the object of the society is not so much to restrain medical men from vaccinating, or to prevent those who approve of the practice, resorting to it whenever they please, as to insure to those who object, freedom of action to reject it; in other words, to abolish the odious tyranny of compulsion, which is declared to be an insult to liberty and the genius of the nineteenth century; and, it is further contended by this energetic body, that posterity will view this outrage upon right and reason as a barbaric rite enforced by the strong hand of government.

It might be fairly deduced from this exposition of their objects and intentions, that the adversaries of vaccination would not be content to act upon the defensive, and, as a matter of fact, the untiring industry with which they produce all forms of literature touching upon the subject, from the lampoon to the semi-religious tract and learned polemic, displays a degree of aggressiveness that does credit to their sense of conviction. When, again, we reflect that the pro-vaccinists have the immense power and patronage of governmental circles at their disposal, it must be confessed, that it requires no little courage upon the part of the association to present so bold a front to long established and almost ineradicable prejudice.

In another portion of this current number of the THERAPEUTIC GAZETTE will be found a communication emanating from an acknowledged authority upon the question of the beneficial influence of vaccine, theoretically at once and practically.

The views so ardently espoused and sustained by usage in this country relating to vaccination as a system of protection are very warmly controverted in this condensed and well-written paper. To those who are curious in this line of literature, it may be proper to intimate that the writers of similar antagonistic essays do not hesitate to invoke the declarations of so eminent a physician and representative man as Sir Thomas Watson, and the accomplished pathologist, Mr. Jonathan Hutchinson, in support of their facts and theories. For instance, Sir Thomas Watson, in speaking of the vaccinal procedure, is quoted as saying, that this fair and priceless charter of safety is nevertheless tarnished by the ugly blot of a possible engrafting of a foul and destructive disease. It is claimed, furthermore by the zealous anti-vaccinists, that the argument based on statistics in favor of vaccination has led to the present delusive superstition with regard to its protective influence.

Probably the most powerful discussion of this momentous question of vaccination, from the standpoint of an opponent, is to be found in the elaborate statement given in the form of a letter to the

distinguished English physiologist, Dr. W. C. Carpenter, by P. A. Taylor, M. P., who, according to his own admissions, has been converted from his early errors respecting the logic of the "immortal Jenner":

It is, truly, a formidable arraignment of pro-vaccinal advocacy, and the redoubtable member of parliament boldly pronounces it a barbarous adherence to principles such as bound the renowned Dr. Sangrado to his discreditable sanguinary practice. He is driven, in fine, to the conclusion, that "the whole system of vaccination is a mere delusion, and that it is proved to a demonstration by the inexorable logic of facts, that it does not protect against small pox; that therefore, the inevitable disturbance of health by introducing an artificial disease is uncompensated by an advantage, and cannot fail to exercise a generally deleterious influence on the public health, while it is proved beyond all dispute, that in the process, other specific and most serious diseases may be transmitted."

The excellent publicist refers in a tone of manifest disappointment to the studied indifference with which his statements have been received in England, and he attributes this ungracious manner to an organized "conspiracy of silence." This is not, we are proudly conscious, the spirit which actuates the professional mind of this country. The principle of the diffusion of light and knowledge belongs to the organic laws of this Government, and it should be made the duty of health authorities and of the medical profession as well here as in Europe, to study the statistics of small-pox and vaccination anew in the light of all questions and doubts that have recently arisen.

Bias and bigotry are to be deprecated in any guise, though it should not be forgotten that these are quite as characteristic of free thinkers as of orthodox believers.

Disinfectants.

WITH the advent of warm weather the question of disinfectants again presents itself for professional consideration. Heat and moisture being the conditions for animal and vegetable decomposition it follows that the process is held in abeyance during the winter months. With each return of the summer, the connection between such decomposition and disease having been tolerably well established, the comparative value of agents which are claimed to possess disinfectant properties, comes up in its practical bearings.

Under the head of disinfectants are usually, but improperly, classed agents which prevent decomposition and those which at best substitute their more penetrating odor for that of the noxious emanations from decomposing matter. A true disinfectant is one which parts with some of its elements to unite with elements of noisome exhalations either to form innocuous compounds or to positively destroy the virulent principle. The value of antiseptics is manifest, on the principle that prevention is better than cure, but it is manifest, too, that the field of their practical application must be very limited. Decomposition is a part of the economy of nature, and while it may be temporarily prevented by art in a limited area, to suspend it with any degree of universality or for any prolonged period would be at once impracticable and unwise.

Deodorants are deceptive in the extreme and are prone to lull to a security which is only fancied, the ill effects of the causes which they are sought to disguise working the while and making secure their baneful harvest.

Decomposition being thus practically inevitable, the demand is for agents which will render its products the least deleterious. These products are mainly very diffusible in their nature and enter the body with the respired air.

The gases present in the atmosphere in localities where decomposition is taking place are aqueous vapor, nitrogen, hydrogen, carbonic oxide, carbonic acid, hydrocarbons, sulphuretted hydrogen, phosphoretted hydrogen, ammonia and ammonium sulphide.

The means of disinfection are mechanical and chemical. Under the head of mechanical means, ventilation is the chief, and properly conducted it, the atmosphere surrounding the dwelling being uncontaminated, is effectual to the keeping of our dwellings free from the deleterious products which are the result of decomposing matter and respired air.

But we have at present to do chiefly with disinfectants of a chemical nature. Agents of this class must necessarily vary with the deleterious constituents of the atmosphere infected. Among the most ancient means under this head is fumigation. This is effective only in so far as the products of the combustion of the substances employed (pyroligneous principles) are capable of neutralizing the products of decomposition, and this field is very limited. Lime has long played an important part in the disinfection of sewers, vaults, etc., and has been applied principally either in the form of slacked lime, lime-water or whitewash. It is effective through its union with the carbonic acid generated. It is, however, objectionable from the fact that it also liberates the ammoniacal gases which are present in combination.

The most effective disinfectants are from the halogen series, and these have, by common consent, come to be regarded as *par excellence* the disinfectants. Chlorine and certain of its combinations are the chief of this class. It exerts a very energetic action on combinations with hydrogen, its affinity for this element being so strong as to take it from almost all of its combinations As a disinfectant chlorine is most active in the presence of moisture, uniting with the hydrogen of the water and liberating the oxygen which attacks and destroys organic matter. It is effective also through the hydrochloric acid formed under those conditions, this acid uniting with the alkaline portions of the exhalations from decomposing matter to form innocuous salts. It is also destructive of phosphoretted and sulphuretted hydrogen and the sulphides of ammonium. The hypochlorides are the principal artificial sources of chlorine for disinfecting purposes, owing to the readiness with which they are decomposed and the chlorine liberated. The practical objection to chlorine is the irritating nature of the gas which forbids its employment under conditions in which it is liable to be inhaled, as in the sick chamber, for instance.

Bromine is also a disinfectant of recognized power, but one which, for some reason, has not come into general use. Its mode of action is similar to that of chlorine, but its action is not so nergetic. Dr. H. S. Taft, of Marquette, Michigan, in the March 25th, 1878, number of the Michigan Medical News, spoke very highly of its effects as a disinfectant in small-pox and scarlatina, and we notice that he reiterates his commendation of it in the April 15th, 1882, number of the Chicago Medical Review. He employs it to disinfect the clothing and bedding of small-pox and scarlatina patients.

The comparative value of the various disinfectants in use is indicated in an official volume issued by Dr. Strück, Chief of the Sanitary Department of Germany, containing the published results of studies by Dr. R. Koch. The Medical Record epitomizes Dr. Koch's work as follows:

"Koch used, in order to test the value of a disinfectant, the micro-organisms of splenic fever. Splenic fever is a septic disease of a low specific character. Its organisms exist in the form of minute, round spores of micrococci, which afterward develop under favorable conditions into slightly larger, rod-shaped bodies of bacilli. It was found, though this indeed was already known, that the spores had a much greater vital resistance than the bacilli.

"Two per cent. solutions of carbolic acid, after three days' contact, only hindered the development of the spores, but even five per cent. solutions did not kill them. On the other hand, one per cent. solutions killed the bacilli within a few minutes. Furthermore, one part of carbolic acid in 1,000 parts of beef-broth prevented the further development of bacilli.

"These are important facts, since they show a source of error in former experiments. It has been stated by Endemann, Sternberg, and others that carbolic acid solutions of about two per cent. strength destroy the activity of low organisms. But this, if Koch's experiments are correct, evidently cannot apply to all organisms, or to every life-form of the same organism.

"The many surgeons whose favorite application has been carbolized oil will be surprised at Koch's assertion that 'carbolic acid dissolved in oil or alcohol has not the slightest disinfecting power'—meaning, it is presumed, upon splenic fever and allied septic organisms.

"Koch tested the power of sulphuric acid, chloride of zinc, borax, white vitriol, and other substances. He found them absolutely incapable, in any ordinary solution, of killing the spores. Such substances as arsenic, quinine, and perchloride of iron would, in one or two per cent. solution, kill the organisms in the course of six or ten days, but were, on the whole, quite feeble disinfectants.

"On the other hand, a few substances only were found to be very active. Thus, two per cent. solutions of bromine, iodine, and chlorine, and of corrosive sublimate (the last being the best) killed the spores within a day. The power of these latter substances to prevent the activity and development of the bacilli was found to be very remarkable. Thus, one part of sublimate in 500,000 of water would completely check the activity of the organisms. Certain volatile oils, such as thymol and terebinthene, were also efficient in dilutions of 1 to 80,000 and 1 to 70,000.

"As the result of his experiments, Koch came to the conclusion that only bromine, chlorine, iodine, sublimate, and the few oils of the class referred to were of value as disinfecting agents."

A great practical objection to chlorine as a disinfectant is the difficulty of preserving it in a free state owing to the fact that agencies are constantly at work which deprive it of its individuality, the very property to which its efficiency is due threatening its permanency. This objection may be largely removed by a union of the chlorine with bromine and a preparation containing this combination has been placed in the market. The objection to chlorine which exists in its irritating properties on the respiratory tract will, however, ever forbid its employment in households and sleeping apartments.

The great natural disinfectant is ozone, and it is by its omnipresence that the deleterious consequences which would otherwise follow universal decomposition are prevented. Under ordinary circumstances it destroys noxious exhalations and it is only when circumstances make decomposition more than ordinarily active that it fails to purify. Ozone is a modification of oxygen in which there occurs a condensation of three molecules of oxygen into two, one of these being active. It is generally held that it is formed in nature simultaneously with the peroxide of hydrogen. Like chlorine ozone is very unstable and its decomposition is affected by ever present causes.

It has been noticed that certain volatile oils by their exposure to air and light generate ozone, and the fact that peroxide of hydrogen is generated at the same time has been clearly demonstrated. The late Dr. Day, of Geelong, Australia, made these facts the basis of his union of turpentine, benzine and oil of verbena for disinfectant purposes, a combination which has become deservedly popular in the purifying of sick chambers. Schönbein found that when a vial quarter full of oil of turpentine was shaken repeatedly with air renewed after each shaking the oil gave all the reactions of ozone. By this means he obtained an oil which was capable, of exerting a bleaching power on indigo 50 per cent. more active than that possessed by chloride of lime. Five drops of turpentine thus treated produced paralysis in a frog, while twenty drops of ordinary turpentine had no such effect.

While it is not our intention to direct attention to any particular preparation we would state that the preparation in the market known as Ozonized Aromatic Liquid is prepared after a method which secures ozone in a form sufficiently stable for ordinary use in the sick room. The ozone is generated after the principle indicated and the compound is free from the deleterious properties which forbid the employment of chlorine.

Association for the Advancement of Medicine by Research.

THE medical profession has been taunted with being builded on empiricism and its claims to recognition as a science disputed by workers in

the more exact divisions of science. While we, of course, have no sympathy with the spirit in which such criticism has its birth we cannot, nevertheless, dispute the fact that the origin of the greatest advances in the practical application of medical knowledge, therapeutics, is mainly to be found in empiricism. This, from the very nature of the case, has been largely inevitable. Long before science had its birth disease existed, and the necessity of means for its relief was felt by man in his early stage of physical development and before his mental faculties were such as to enable him to apply reason and scientific methods in this direction. But even since science has developed into a system and since the human mind has attained its mighty grasp, the advances in medicine have been largely due to accidental discoveries through mere experiments. These are facts the force of which has been felt for many years, but it has been only occasionally that a worker in medicine has branched out on a tour of investigation into any of the many fields which are still waiting for him.

It is somewhat singular that the facts are as they are, but a measure has recently been set on foot in England through which it is hoped that medicine may be effectually "removed from the limbo of observation and made an experimental science." At a meeting held at the College of Physicians, London, and largely attended by leaders in the profession an organization was effected to which the descriptive title "Association for the Advancement of Medicine by Research," was given. The remarks of the gentlemen who were present bore on the necessity for some concerted action in this direction, and were hopeful that much of real value would be the result of the systematic manner in which each member of the association will be expected to supplement the labors of the rest. Sir William Jenner, who presided at the meeting, indicated the specific line of work in which the association will engage, as calculated to bring the legitimate influence of the medical profession more effectively to bear on the promotion of those exact researches in physiology, pathology and therapeutics, which are essential to sound progress in the "healing art." Sir George Jessel, in supporting the resolution to adopt the title of the organization, said the future progress of medicine must rest on science. He had had occasion from time to time, owing to the position he held, to observe the progress of medicine, and he knew that that progress was owing greatly to the accidental discoveries made through experiments, and that those experiments had resulted most beneficially for mankind. He was, therefore, thoroughly convinced that the real progress of the healing art depended on true scientific investigation. He felt satisfied that the establishment of the association would be productive of good, and could in no way produce mischief. The support of the public at large would be necessary Great ignorance prevails as to the art of healing and of the various sciences which make up an accomplished practitioner. The public required information, first of all, as to the necessity of experiments on living animals, which has given rise to so much discussion of late; and they require, besides, to be fully informed what advantages are to be gained by that method of pursuing scientific investigations —what amount of pain is inflicted on the lower animals, how often the pain need to be inflicted, and whether those who inflicted the pain still possess those feelings of sympathy so characteristic of the profession at large. Sir George wished success to the association, and God-speed to those who were endeavoring by means of science to alleviate the sufferings of the human race.

We hope to see a similar association to the above organized, in the near future, in this country.

Michigan State Medical Society.

THE sixteenth annual meeting of the Michigan State Medical Society was held in the Opera House in the city of Ypsilanti on the 10th and 11th ult. The meeting was presided over by the president, Dr. J. H. Jerome. Between 50 and 60 members were in attendance,—rather a small gathering of the brethren. This was not to be wondered at, as Michigan doctors are famed for turning out only when there is something exciting, and on this occasion there was nothing in particular. There were a few good papers read, but they elicited very little discussion. The fact that the Ypsilantians had ignored the time-honored custom of a banquet in the evening, threw a general chill over the association, from which it evidently did not rally.

Dr. G. W. Topping, of DeWitt, was elected president.

First Vice-President—S. S. French, Battle Creek.
Second Vice-President—Hugh McColl, Lapeer.
Third Vice-President—D. W. Bliss, Saginaw.
Fourth Vice-President—A. Stevenson, Adrian.
Secretary—Dr. G. E. Ranney, Lansing.
Treasurer—A. R. Smart, Hudson.
Judicial Council for three years—Drs. Bennett, Breakey and Brodie.

Some of the delegates to the next meeting of the A. M. A. were selected and the President and Secretary authorized to fill out the delegation.

The Society adjourned to meet in Kalamazoo, 1883.

Novel Therapeutics.

THE latest novelty that has come to our notice in therapeutics is the "galvano-electric suppository." This strange instrument is said to consist of "a conical button of brass, connected by means of an insulated wire with a silver spatula. The button is inserted in the rectum and the spatula put in the mouth. The connecting wire being insulated, the current can only pass through the body along the alimentary canal and the intestines." It is recommended to be used twice a day for ten minutes; and it is asserted that after a couple of days the evacuations will become regular. As this invention is said to be patented, it is well to warn the profession against infringement. The pharmaceutical profession should also beware of this dangerous instrument, for its general introduction threatens to ruin the sale of cathartic pills. A great monopoly in therapeutics is thus likely to be created. The professions should take warning in time with regard to granting patents

en medical appliances. Great care is necessary in the use of this instrument in the placing of the button and spatula on the right wire with regard to the direction of the current, otherwise a retrostaltic action may be set up in the intestines, and unpleasant result ensue in consequence.

A Well Deserved Honor.

WE notice that Dr. Henry H. Froehling has been appointed Professor of Chemistry, Toxicology and Medical Jurisprudence in the Baltimore Medical College. Dr. Froehling is an indefatigable student, and has been unremitting in his labors. His investigations in various directions are too well known for comment. In connection with the introduction of Persea gratissima he has become widely known to the medical profession of this country and Europe.

Notice.

WE will pay fifty cents a copy for the March and April numbers of the London Lancet American Reprint for 1881. Please notify the editor, by postal, 64 Lafayette avenue, Detroit, Mich.

Abstracts.

The Work of Health Officers, and of Local Boards of Health in Michigan.

Inquiries are frequently received at the office of the secretary of the Michigan State Board of Health for statements of the duties of the health officer as a sanitary adviser and executive officer of the local board of health. In response to these inquiries an official circular has been sent out, from which we make the following abstracts:

There is a board of health in every township, city and village in Michigan; and the appointment of a health officer is required by law of every local board of health in the state.

If no health officer is appointed in a township "within thirty days after the annual township meeting," it will still be necessary to appoint or re-appoint one after that time, as in the case of a vacancy; as will also be necessary if the officer appointed does not "qualify," or file his oath of office. Vacancies occur whenever the incumbent of an office ceases to be an inhabitant of the district, county, township, city, or village for which he was elected or appointed an officer—see section 617, compiled laws of Michigan, 1871.

Before entering upon his duties the health officer should take and subscribe the official oath required by Sec. 1, Art. xviii., of the Constitution of this State, and file the same in the office of the clerk of the city, village, or township of which he is the health officer.

Some of the powers and duties of local boards of health are specified in Chapter 46 of the compiled laws of Michigan, 1871. This chapter was constructed more particularly with reference to township boards of health, but section 49 of the same chapter (chapter 35 of the Revised Statutes of 1846, and chapter 46 of the compiled laws of 1871) as amended by Act No. 145, Laws of 1879, makes it apply to cities and villages. That section is amended as follows:

(1740.) SEC. 49. The mayor and alderman of each incorporated city, and the president and council, or trustees of each incorporated village in this state, in which no board of health is organized under its charter, shall have and exercise all the powers and perform all the duties of a board of health as provided in this chapter, within the limits of the cities or villages, respectively, of which they are such officers. The provisions of this chapter, and the amendments thereto, shall, as far as applicable, apply to all cities and villages in this state, and all duties which are, by the provisions of this chapter, to be performed by the board of health of townships, or by the officers and inhabitants thereof, shall in like manner be performed by the board of health and the officers and inhabitants of such cities and villages, with a like penalty for the non-performance of such duties excepting in cases where the charters of such cities and villages contain provisions inconsistent herewith.

It is believed that there is nothing in the charter of any city or village in the state that conflicts with the general law which requires the apppointment of a health officer by the council acting as a board of health, or by a board of health constituted under some charter provision.

One great object in securing a physician as health officer is to enable each local board of health to lead and not, as too frequently heretofore, to follow the people in sanitary knowledge and action. As a rule, our physicians are our leading sanitarians, and they know much better than other people what are the sources of danger to the public health in their several localities; and, as a rule, they know best how to avoid those dangers. It is, therefore, for the interest of the people to secure the benefits of that knowledge by paying for the services and advice of the best sanitarian, who will usually be the best physician in their locality.

If it is true that responsibilities are in proportion to capacities and powers, then a local board of health, which, as in this state, has almost absolute power, must be held responsible for any sickness or death that might have been prevented by a proper use of its legal powers; and an individual health officer employed and paid for sanitary advice who does not use the sanitary knowledge of which he is possessed, in a way to make it as effective as possible for preventing sickness and deaths in his vicinity, is especially culpable.

Although as "an executive officer of the board" the power and authority to act will be only that given to him by his board of health, as a "sanitary adviser," as the health officer he should, and doubtless will, have influence in determining the action of his board, in proportion to his knowledge of sanitary science and his honest effort for the promotion of the public health.

The health officer should be a physician who has given and will give special study to sanitary subjects, and who is qualified to instruct and advise the local board of health in all matters relating to public health which may come before it. The law provides that he shall be a sanitary adviser of the local board of health. In order that his advice may be had to the fullest extent, it seems necessary that generally the health officer should meet with the local board of health, and the local board of health is authorized to fix his compensation, which should include his services at meetings of the board, compensation for his ser-

vices in reporting to the state board of health, etc. By Sec. 1693, compiled laws 1871, as amended by act No. 202, laws of 1881, every board of health is empowered to regulate and audit all fees and charges of persons employed by it in the execution of the health laws and of its own regulations, including the salary of the health officer. Such of the charges as are payable by the township must be paid by the township treasurer upon orders signed by the supervisor and clerk. The law gives the board of health the right to audit its own expense accounts, and, in townships, the supervisor and clerk, being members of the board of health, can easily sign the orders on the treasurer.

There are many directions in which the health officer can advise his local board of health how to put forth effort for lessening sickness and deaths within its jurisdiction:

Epidemics should be prevented. This can generally be done, if local boards of health will but act efficiently in studying out and applying methods which are now practicable.

Epidemics of communicable disease can frequently be prevented by restricting outbreaks to the first cases which occur.

Prompt notice of outbreaks of disease should be secured. For the most effective restriction of *all communicable diseases* one of the first requisites is that your board shall *promptly receive notice of every case* of a communicable disease.

Communicable diseases should be restricted. When notice or information of the occurrence of a case of a communicable disease reaches the local board, it should act promptly for the restriction of the disease. To neglect or postpone such action is a great violation of public trust. As so much depends on prompt action on the appearance of the first case of a communicable disease, and in order that no time may be lost, it is the duty of every board of health to make provision for prompt action by its health officer, authorizing and directing him to be prepared at all times, as executive officer of the board, to take certain action without waiting for a meeting of the board, whenever a case of scarlet fever, diphtheria, small-pox or other disease dangerous to the public health occurs within its jurisdiction. Some of the duties which the health officer should be directed to perform may be briefly suggested as follows: He should—

1. Promptly verify the reports of cases of scarlet fever, diphtheria, small-pox, or other dangerous disease, and investigate suspected cases which are not reported, so that he may act intelligently.

2. Secure the prompt and thorough isolation of those sick with or exposed to such a disease, and see that such isolation is continued as long as there is any danger of communicating the disease.

3. See that no person suffers for lack of nurses, etc., because of isolation for the public good.

4. In case of an outbreak of small-pox, secure a prompt vaccination of all persons who have been or may be exposed to the disease.

5. Give public notice of infected places, as required by section 1732, compiled laws of 1871.

6. Notify teachers or superintendents of schools concerning families in which are contagious diseases.

7. Regulate funerals of persons dead from scarlet fever, diphtheria, small-pox, etc.

8. Disinfect rooms, clothing and premises, and all articles likely to be infected, before allowing their use by other persons.

9. Give certificates of recovery and of freedom from liability to communicate the disease.

10. Keep his own board of health, and the State Board of Health, constantly informed respecting every outbreak of a disease dangerous to the public health.

A meeting of the board of health should, however, be held as soon as possible on the outbreak of a communicable disease. The local board of health and the physician in charge of cases of such a disease should co-operate for its restriction. The local board of health should especially guard against its spread by cases where no physician is employed.

Cases of diseases which endanger the public health should be recorded. Another duty incumbent upon the local board of health is the recording of the sickness from communicable diseases, and of the deaths of citizens and persons under its protection; such records to be for local use, and also to be reported to this State Board, so that, when grouped with the records of other localities, the conditions may be studied, and new methods of prevention learned from such unhappy experiences, which otherwise will continually be repeated.

Much sickness and many deaths from ordinary diseases should be prevented. A field of labor, perhaps even wider than that of the communicable diseases, is open to your local board of health—namely, the inauguration of measures for preventing sickness and deaths from the ordinary diseases in this State, a very great proportion of which are now believed by our best sanitarians to be preventable. Some of the prominent measures to be inaugurated are:

1. More thorough drainage of the soil, especially near dwellings.

2. Better securities against the contamination of the water-supply, particularly in wells, by filth-saturated soil, etc.

3. A strict guard over the purity of the air, and freedom from nuisances and unclean places.

4. Better sanitary and hygienic arrangements and plans in the public schools, and in public buildings and institutions.

In the execution of these measures, much may be accomplished by systematic and thorough inspections, and by published reports of such inspections, which shall attract attention to the subject, give definite knowledge of existing defects, and suggest methods of improvement.

5. Typhoid fever is believed to be a disease often communicated by means of water or milk contaminated with the discharges from typhoid fever patients, or with the remains of those who have died from the disease. Hence typhoid fever might often be prevented by a thorough disinfection of such discharges, and by requiring that those who have died from the disease shall be buried entirely away from all sources of water-supply and by condemning sources of water-supply already thus contaminated.

Nuisances should be abated. While it is not, as many suppose, the first and only duty of a health officer to smell out a cesspool or an offensive privy, he is the one to whom, from his official position

and authority, the people properly look to discover and abate any such nuisance. Freedom from such sources of sickness is believed to be one essential condition of good health in a community, and a duly empowered health officer or a board of health that from any considerations whatever does not do the utmost (and the power of a local board of health under the law is almost absolute) to prevent and remove such unsanitary conditions is guilty of a plain neglect of duty and a violation of official trust. For a valuable discussion of the powers of local boards of health in the abatement of nuisances, the reader is referred to a paper on the powers and duties of local boards of health, by Hon. LeRoy Parker, of Flint, published in the report of this board for 1879, pages 289–300; also a report by Homer O. Hitchcock, M. D., on slaughter-houses and rendering establishments, on pages 65–80 of the same report.

Sanitary information should be disseminated among the people. The local board of health should be a center of sanitary and hygienic intelligence for its locality; its meetings should not be infrequent, and should be so managed as to secure papers or discussions on special subjects and on the application of the principles of sanitary science to the particular sources of danger in the immediate vicinity, and otherwise to encourage progress in sanitary knowledge, among the members of the board as well as among the people. Charged, under an official oath, with the duty of guarding the life and health of fellow-citizens, the duty of members and officers of boards of health to seek out the best that is known in public hygiene and sanitary methods seems to be plain. The best sanitary work cannot be done except by the coöperation of the people with the board of health, and this can be secured when the people are well informed on sanitary subjects; the thorough distribution by local boards of health of all such documents as the one issued by this board on the restriction and prevention of scarlet fever and the one on the restriction and prevention of diphtheria will tend to disseminate useful information and greatly decrease sickness from such diseases.

Local boards of health have two kinds of functions. 1. To utilize for the people the sanitary knowledge already accessible. 2. To add to the general stock of such knowledge. Additions can be made to sanitary knowledge by original research, by means of records of experience, by means of vital statistics, which supply an important basis for public hygiene, and by freely reporting to the state board, which will then eventually be able to give to each local board the benefits of the experience of all the others. In order to be able to report to the state board of health as the law requires, the local board must collect facts. If the local board does not receive notices of cases of communicable diseases, this is, in some degree, its own fault; because the law requires each member of the township board, whenever he shall "have good reason to believe" that a forfeiture from neglect to report any such case has been incurred "forthwith to give notice" to the supervisor, and it is the duty of the supervisor "forthwith to commence and prosecute a suit;" and in cities and villages, the law makes it the duty of the health officer to report to the prosecuting attorney all cases of forfeiture under sections 1734 and 1735; and the prosecuting attorney is required to prosecute for all such forfeitures.

Faith an Essential Element of Success in Practice.

Dr. Fothergill, in referring to this subject, utters some very sensible remarks. There is no doubt that many physicians make the most lamentable failures on account of their want of faith in therapeutic measures. The effect of the mind on the body is well known, and when the patient sees a lack of confidence in the physician, he is depressed thereby, and the condition is made worse, instead of better. One of the most successful practitioners in one of our western cities attributes his success in great measure to the faith he himself has in the effectiveness of drugs properly administered, and the confidence that his faith inspires in his patients. Dr. Fothergill says: "If the medical man speak to the patient with doubtful accents and hesitating utterances, he does not inspire confidence; he really sows distrust. This is the explanation of the successful treatment of a case by one man where another has failed, the remedial measures being much the same. The one carries the patient with him to the restoration of health; the other intensifies a morbid state and tends to make it permanent.

This is a matter too little thought about. Just as a weak-willed medical man fails to do certain patients good; and lack of decision of character unfits a medical man for dealing with emergencies, where the judgment must be prompt and the action energetic; so the therapeutic nihilist, who doubts the efficacy of drugs and leaves the patient to nature, disheartens many patients, and leaves them chronic valetudinarians; while in the hands of an enthusiast the cases would soon move onward to a satisfactory termination. There are some men who are "doubting Thomases;" there are others who decry what they do not understand, and deprecate remedies with whose potency they are unacquainted, who do infinite, immeasurable harm to their patients. An eclipse of faith in medicines has now existed some time; but the darkness is beginning to move away, and a return of faith, stronger, firmer, more capable of giving a *raison d'etre* for its existence than in the past is dawning—the daybreak of happier times for those who are stricken down with illness, or crippled in their working power by incapacity in their digestive viscera. This therapeutic nihilism is a passing wave of opinion, a temporary mental state, the end of which is at hand; and the sooner it is over the better for all. The patient's prospects will be all the brighter, the medical man all the happier for feeling that the patient has got some "value received" in return for his outlay. A healthier condition of thought on matters medical will generally obtain; for quacks, charlatans and irregular practitioners of all kinds are to a great extent fostered by the recent want of faith in the medical profession. When a man is sick, what he wishes is to get well; the means to him is a matter of comparative indifference.

Perhaps those acrid personages who have a dis-

finct line of faith, or rather the want of it, those individuals who believe in Homœopathy, and talk flippantly of "Allopaths," who deny the utility of the contagious disease act, who are anti-vaccinators, who are blinded compounds of scepticism and credulousness; those who are utterly unteachable from prejudice and ignorance "vaunting itself as knowledge" cannot be benefited; not even if their chief diurnal instructor, their "guide, philosopher and friend," the Daily News, was to modify its attitude and show a livelier interest in matters affecting the public health, and a little more decent respect for the observations of "the natural man." They are an unhopeful class, the obstructionists of all progress in matters sanitary and hygienic; whose self-satisfaction in their ignorance on matters medical is simply as aggressive and impertinent as that ignorance is appalling. They are blinded guides in their self-appointed mission of directing the opinions of mankind; but their faith in themselves is unbounded.

Chloroform and Nitrite of Amyl.

In a recent communication to the Medical Record attention is directed to the use of nitrite of amyl in chloroform narcosis. It is stated in Holmes' System of Surgery that "Nitrite of amyl has received the highest commendation as a means of combating chloroform narcosis. Its administration being by inhalation of the vapor, it can only be resorted to in some cases. Recoveries have unquestionably followed its use, but whether as a sequence or consequence is not so clear, and further observations are needed. It must be remembered that, although nitrite of amyl is a most effective remedy in one form of cardiac disease, its brilliant service is not due to its action on the heart, but upon the peripheral arterioles, spasm of which it relaxes, and that its action in lowering the blood-pressure is not favorable to its use in chloroform accidents." Experiments show, however, that hypodermic injections of five drops of nitrite of amyl, after complete anæsthesia and abolition of reflex action, with suspended respiration and a fluttering heart, are promptly followed by reaction of the pupils to light, resumption of respiration, and improved cardiac action, with ultimate recovery; so that the administration of this agent need not be limited to inhalation of the vapor, but it may be given hypodermically. Again, although "its brilliant service is not due to its action on the heart," the result is similar, since, by the *vis a fronte* effect produced when the arterioles are relaxed, the cardiac current is drawn into the enlarged vessels, and stasis is prevented. Further, the statement that "its action in lowering the blood-pressure is not favorable to its use in chloroform accidents" does not seem to be borne out by clinical experience. Dr. James L. Minor, of Rapidan, Va., reports a case in which a patient who had locomotor ataxia passed suddenly from a condition of usual health into collapse. There was general pallor, with complete unconsciousness, and the arterial beat was imperceptible at the radial pulse, but faintly recognized at the femoral pulse. Here was evidently a lowering of the blood-pressure similar to that which occurs in chloroform syncope. The ordinary method of inhaling a few drops of nitrite of amyl was tried in vain, and then three minims were injected hypodermically. In a few moments the heart responded and the pulse was recognized in the radial artery. In about half an hour the effects of the medicine seemed to disappear, when five minims were injected, with the result of producing action more vigorous than before. The patient lasted for nearly twenty-four hours, during which time amyl nitrite was frequently administered. As much as fifteen mimims were given at one of the doses when the "pulse became incompressible." So long as the vital powers were able to respond, the administration of the medicine was followed by a reaction which seemed marvelous.

Cases are, also, recorded in which impending death is said to have been conclusively averted by nitrite of amyl.

Who Introduced Nitro-Glycerine?

The following clipping from the April number of the Philadelphia Medical News is of interest in the history of this new remedial agent. It is a point of importance that due credit may be given for what appears to be a valuable discovery, and we gladly republish the following claim made by Dr. Allan M'Lane Hamilton, of New York city:

In an article in the current number of the News it is stated that nitro glycerine is a new remedy. I desire to call attention to the fact that the drug was used many years ago, and articles detailing its physiological effects were written as far back as 1855.

I wish, now, to claim priority in suggesting its use in the treatment of various nervous diseases, including epilepsy and migraine, in appreciable doses. Dr. A. J. Minor and I conducted a series of experiments in 1875, which were subsequently published.* I afterwards suggested its use in epilepsy,† and see no reason to change the views I then enunciated, viz., that it was an excellent substitute for amyl nitrite, that it was serviceable as an abortant in epilepsy, and was of great benefit in sick headaches. I should not make this claim of priority were it not that a recent article has appeared upon the treatment of epilepsy in which no mention is made of my original discoveries. I presented, in 1876, the formula for the alcoholic solution which you speak of in your editorial, and which has since been employed.

After using the drug freely for eight years, I can say that I have never seen a case of poisoning, nor any grave or lasting nervous disturbance from its administration in the ordinary doses. In my own experiments, I, upon one occasion, took one drop of pure nitro glycerine, and a number of alarming symptoms were developed. The initial disturbance was a feeling of indescribable headfulness, a galloping, full pulse, an impending confusion, which deepened into semi-consciousness and temporary blindness. I was intensely sensitive to noises, and the laying of a friend's hand upon my shoulder caused me to start violently forward. This condition passed off in a few minutes

* American Psychological Journal, Feb., 1876.

† Chicago Med. Journal and Examiner, Dec., 1876; and Nervous Diseases, their Description and Treatment, first edition, 1876, p. 413.

after a solution of bromide of sodium had been taken, and was followed by protracted vomiting, which was almost of a cereoral character. For several days I suffered from after-effects, such as attacks of dizziness, transient blindness, and great weakness of the lower extremities.

43 E. 33rd St.

An "Epechontocic" Agent.

Dr. Fancourt Barnes, M. D., M R. C. P., physician to the British Lying-in Hospital, and assistant physician to the Royal Maternity Charity, reports in the British Medical Journal for March 18, 1882, the use of nitrite of amyl to counteract the effect of ergot. The nitrite of amyl was employed by him in a case of retained placenta which he was unable to deliver on account of an hour-glass contraction of the uterus. The midwife, hoping to accelerate the third stage of labor, had given the patient a dose of ergot as soon as the child was born, and the os internum and the circle of muscular fibres above it called Bandl's ring, were firmly contracted and would only admit a finger. The umbilical cord had been separated from the placenta. Bearing in mind the remarkable power which nitrite of amyl possesses in relaxing tension of the blood vessels, Dr. Barnes determined to test its action on uterine spasm. He says, "The patient had three drops nitrite of amyl given her on a handkerchief to inhale, by Dr. Lingard. During the inhalation the ring of muscular fibres round the os internum, which had been so rigid as to be absolutely undilatable, steadily yielded, until I could pass the whole hand into the uterus and detach the placenta, which was universally adherent. There was no hæmorrhage whatever, and the placenta itself presented a remarkably exsanguine appearance."

Book Reviews and Notices.

A Treatise on the Science and Practice of Medicine or the Pathology and Therapeutics of Internal Diseases. By Alonzo B. Palmer, M. D., L. L. D., Professor of Pathology and Practice of Medicine and Clinical Medicine in the University of Michigan; Physician to the State University Hospital; formerly Professor of Materia Medica and Practice of Medicine in the Berkshire Medical College, Massachusetts, and Professor of Pathology and Practice of Medicine at Bowdoin Medical College, Maine, Honorary Member of the New York State Medical Society; ex-Vice President of the American Medical Association, etc

New York: G. P. Putnam's Sons, 27 and 29 West Twenty-third street. 1882. In two vols. of over 900 pages each. Price in sheep, $6.00; cloth, $5.00.

As a general rule authors inform their readers in their preface what they purpose to demonstrate in the body of their books. The reader consults the preface first in order to learn why the book is written and second how the author proposes to treat the subject, differing from those who have written on the same before.

We are informed that one reason for writing another work on the Practice of Medicine was that his students felt an evident want of a text-book to follow the lectures of the author in the several medical schools with which he was connected, and also that the numerous practitioners who had attended these schools desired to have the substance of their teaching in a more tangible form for reference and study.

These reasons of themselves, in our opinion, are neither satisfactory nor conclusive as to the necessity of another work on practice.

But the author does give some reasons, which, if not conclusive, can at least be accepted as an excuse:

1. That the few domestic treatises on the Practice of Medicine (and which, with two or three exceptions, are out of print) are not sufficient to supply fully the wants of the reading American profession.

2. The question whether therapeutical directions given by foreign authors are the best, if they are even safe guides in the treatment of the ordinary diseases in this country. It is, we believe, an accepted fact that each nation has its peculiarities of disease requiring peculiarities of treatment. Climate has its influence, habits and the peculiar surroundings of a people have their influence, as well as the habitations, clothing, food and drinks; our domestic and social relations, do and must differ from those of the Europeans.

3. The author claims that most of the European works on the practice of medicine are based upon conclusions drawn from consultation practice and attendance upon patients in large city hospitals. In the former the patient is seen in the more advanced stages of the disease when medical agents can have but little effect, and in the latter the observations are made upon those who are generally destitute, starved or intemperate, or suffering from specific diseases produced by vice. The author bases his work upon a very different standpoint. He purposes to present diseases as found in an ordinary American village or country situation where well-fed, well-housed and non-alcoholized people are seen in the beginning of their diseases, and which constitute the large majority of patients treated by the American physician. The treatment, self-evidently, must be different.

The author claims that the time for a strictly scientific classification of diseases has not arrived, and in the arrangement of subjects convenience has been followed rather than any attempt made at such a classification; hence the readers of the work will seem to be beginning at the end instead of the beginning of most other authors.

The first 130 pages are devoted to general pathology and therapeutics, in which are included physiological and pathological observations, inflammatory and non-inflammatory changes, therapeutics of inflammation, pyrexia, infectious poisons, the classification of fevers and minor diseases; 400 pages are given to particular general diseases, in which are discussed the different forms of fevers, the zymotic diseases and those diseases which exemplify themselves by an eruption of the skin or change in its pigmentary character, diseases of the blood, of which chlorosis and anæmia are symbolical, and the different conditions of the system included in the rheumatic diathesis and the variations pertaining thereto.

The rest of the volume is taken up in the discussion of local diseases. These are discussed under the several heads of etiology, prognosis, diag-

nosis and treatment. As a rule, the author varies but little from the writing of other authors on the same subject, and the difference is to be found, if any, under the head of treatment. Quinine, iodide of potassium and Dover's powders are his favorite remedies and are used more or less in nearly all cases and varieties of disease. The necessity for these will be readily comprehended by all the readers of the book who reside west and south of the Appalachian range of mountains and the New England states.

Malaria, in one or more of its protean forms, insinuates itself into almost every disease, and is a governing element. It interferes with the physician in his treatment of inflammation and of fevers, and the surgeon has also to continually bear its influence in mind when he performs a simple amputation or the removal of an ovarian tumor. Quinine is essential as a therapeutic agent. The same may be said of opium and iodide of potassium in those diseases in which they are indicated.

As the author informs his readers in his preface, that the work was prepared especially for those who have listened to his instructions we have no doubt that they will fully appreciate it. To those who have personally known him and his peculiar views, especially on the matters of fevers and epidemic cholera, the book will be an agreeable disappointment. To us, amongst that number, it is especially so. The general reader who has not listened to his teachings, and who may not have that state pride which western men indulge in, and who may think that unless of European origin or written in some large city on the Atlantic coast, a work on medicine has nothing to commend it, will also be agreeably disappointed. Of course we only judge from the half of the work before us, but we bespeak for it a careful examination and a laying aside of all prejudice on account of its western origin.

A second edition, which we trust will soon follow, will enable the author to make its grammatical construction more perfect, and elucidate more fully his definition of matter and force, and its application to the science and art of medicine. The publishers are to be congratulated upon the handsome manner in which the book is issued.

Chronic Bronchitis, its Forms and Treatment. By J. Milner Fothergill, M. D., Edinburgh, Member of the Royal College of Physicians, of London; Senior Assistant Physician to the City of London Hospital for Diseases of the Chest (Victoria Park); Associate Fellow of the College of Physicians of Philadelphia. With numerous illustrations.
New York: G. P. Putnam's Sons, 27 and 29 West Twenty-Third Street. Detroit: John MacFarlane. Price, $1 50.

This is an excellent monograph and is intended for practitioners, especially those who are commencing practice. It illustrates a form of disease found much more frequently in cold and humid climates than in this of ours. Nevertheless, it is occasionally met with in this country and requires more than ordinary skill to manage it. It is a distressing disease, equally so to the patient and his friends.

The subject is treated under the heads of the objective and subjective phenomena. Its pathological relations, its forms, as asthmatic, catarrhal, cirrhotic, emphysematous, degenerative, mitral and gouty, and concludes with its treatment and its complications.

The author has become quite a favorite with physicians on this side of the Atlantic, especially so as all his writings are full of good, sound, practical sense, written to the point and in a manner pleasing and captivating.

We commend the book to our readers as one to be read and studied for the information it contains.

On Concussion of the Spine, Nervous Shock and other Obscure Injuries of the Nervous System in their Clinical and Medico-Legal Aspects. By John Eric Erichsen, F. R. S., Surgeon Extraordinary to the Queen; Emeritus Professor of Clinical Surgery in University College and Consulting Surgeon to the Hospital; Ex-President of the Royal College of Surgeons of England and of the Royal Medico-Chirurgical Society, etc. "Je raconte je ne juge pas"-montaigne." A new and revised edition.
New York: Wm. Wood & Co., Publishers, 27 Great Jones street. 1882.

In 1866 the author published six lectures on certain obscure injuries of the nervous system commonly met with as the result of shock, to the body in collisions on railways. His object was to direct the attention of surgeons to a class of injuries that had hitherto been but little noted, to throw some light on their true characters, and lastly, to show that though they commonly arose from railway collisions, they were not peculiar to them, but might be the consequence of the more ordinary accidents of civil life. These lectures were translated into German and republished in this country. In 1875 the author revised his first six lectures and added eight more, giving the result of his extended experience. In this revision the author materially extended the scope of the work and gave particular attention to the medico-legal aspects of this large, obscure and important class of injuries of the nervous system. This edition has long been out of print, and it became impossible to obtain a copy. The vast increase in the mileage of railroads renders accidents upon them more common. A fracture or loss of a limb is easily seen and the loss easily calculated; but in these obscure injuries of the nervous system there is a difficulty of diagnosis. The prognosis is uncertain. A large field is therefore opened to the malingerer, and feigned conditions are easily practiced under the least provocation.

The author discusses the subject in fourteen lectures:

1. Introductory remarks.
2. On the effects of direct and severe blows to the spine.
3. On the symptoms of severe concussion of the spine.
3. The same continued.
4. On concussion of the spine from slight or indirect injury.
5. On concussion of the spine from general shock.
6. On sprains, twists or wrenches of the spine.
7. On the mode of occurrence of shock, and on the pathology of concussion of the spine. Part 1st. On the mode of occurrence. Part 2d. On the pathology of concussion of the spine.
8. On spinal anæmia, hysteria, shock and unconsciousness as consequences of concussion of the spine.
9 On the complications of concussion of the spine, and on the influence of injuries of peripheral nerves on the central portion of the nervous system.

10. On impairment of vision complicating injuries of the nervous system.

11. On certain forms of paralysis of the limbs from local injuries which may complicate concussion of the spine.

12. On the medico-legal aspects of concussion of the spine and shock of the nervous system, and on their diagnosis.

13. On progress in concussion of the spine and medico-legal aspects.

14. On the treatment of concussion of the spine.

A table of forty-three cases is given to illustrate the text. We have personally had some experience in injuries of the nervous system, arising from railroad injuries to the spine, and not being able to obtain this work have felt a loss not only in practice but also when called into court to testify in suits for damages; not that we want an authority to quote from, but an authority to compare with. We therefore hail with pleasure the republication of this valuable work. As before remarked injuries to the nervous system from railroad accidents are becoming more frequent and it is to the interest of both the injured and the causers of such injuries that the surgeon should be well informed. We cordially endorse the work and can, from experience, recommend it to every surgeon whether in the employment of railroads or in civil service as a most valuable work and worthy of persevering study.

A System of Surgery, Therapeutical and Practical, in Treatises by Various Authors. Edited by T. Holmes, M. A., Cantab. Surgeon and Lecturer on Surgery at St. George's Hospital; Member Correspondent De la Société de Chirurgie de Paris. First American from second English edition. Thoroughly revised and much enlarged. By John H. Packard, A. M., M. D., Surgeon to the Episcopal and St. Joseph Hospitals, Philadelphia, assisted by a large corps of the most eminent American Surgeons. In three volumes, with many illustrations. Vol iii. Diseases of the Respiratory Organs; Diseases of the Bones, Joints and Muscles; Diseases of the Nervous System; Gun Shot Wounds; Operative and Minor Surgery; Miscellaneous Subjects. Philadelphia: Henry C. Lea's Son & Co. 1882.

We have heretofore expressed our opinion of this great work on surgery and the ability of the American editor, but we must take exception to so much of the title page as refers to the assistance rendered by the most eminent American surgeons as exemplified in the volume before us. Their additions to the text we opine needed more editing than the original work. The old adage, "The shoemaker should stick to his last," is equally applicable to the surgeon when he enters the domain of physiology. We think it would have been full as well to have let Mr. Berkett alone in his classification, and we can scarcely credit the reviser when he states that he has seen "malignant sarcoma mistaken again and again for acute and sub-acute inflammation, but only once in a mammary tumor," unless those making the mistakes were his own pupils.

As a general rule, the revisers have added but little to the original text, which is much to their credit.

The publishers deserve the approbation of the American surgeons in placing this great and approved work in surgery before them at such a reasonable price, and in such a satisfactory character. No surgical library can be complete without it.

Die Homœopathie und Ihre Bedeutung fur das œffentliche Wohl. (Homœopathy and its Importance to Public Health.) By Dr. Johannes Rigler. Berlin, 1882. Verlag Von August Hirschwald.

The purpose and aim of this somewhat elaborate work on homœopathy is, as the author sets forth in his preface, to provide the medical profession and laics of culture with a clear and precise statement of the peculiar doctrine of *similia similibus*, and thus relieve them of the necessity of engaging in any laborious study of the subject. The enthusiastic author is impressed with the notion that lack of knowledge of the principles of homœopathy has frequently tended to bring it into disrepute not only with the public at large, but also with legislative circles, which he insists is a manifest detriment to society and to the commonwealth. It is plain that this devout follower rests his faith in that pronunciamento of Hahnemann's, that the system of homœopathy is an utter subversion (Von Haupte bis Zum Fusse) of the received teaching of the old school; in a word, a complete reformation has been effected, and to eradicate what is considered an evil in its very essence, he does not hesitate to place in his opening chapter another declaration of the great medical reformer, that such monstrous principles can only be removed by the fiery turbulence of a Martin Luther, instead of the angelic sweetness of a John Huss. Furthermore, in the promulgation of the fundamental theories of Hahnemann's Organon, the excellent author piously believes that he is erecting an altar to eternal truth. Whilst we cannot agree with the conclusions reached in the sequence of this work, we do not for a moment question the sincerity of the motives with which it has been evidently prepared, and we, therefore, unhesitatingly commend it as an excellent resumé of the long contested doctrinal point. The chapters devoted to a life picture of Hahnemann are particularly interesting and written in a characteristic spirit of admiration for the founder of the homœopathic system.

Annual Report of the National Board of Health. 1879. Government Printing Office, with the compliments of Dr J. J. Turner, U. S. N., Secretary of the National Board of Health.

This is a volume of 467 pages and records the action of the Board for the year, including 30 maps explanatory of the text in as many localities, besides others of smaller note. To the Sanitarian it is full of interest and information, besides being a record of the efforts of the General Goverment in the Sanitary condition and health of the people, particularly in certain localities where epidemic diseases have occurred.

On the Abortive Treatment of Buboes and Lymphadenitis Generally, by injections of carbolic acid By Morse K. Taylor, M. D., Captain and Assistant Surgeon U. S. Army; late Surgeon and Brevet Lieut.-Colonel U. S. Volunteers. Extracted from the American Journal of Medical Science.

We have never tried the plan of the author, but we see no serious objection to it. It consists of the injection (after first chilling the part with the spray) of xx minims of an eight grain solution of carbolic acid, according to judgment. The accumulated fluid is to be aspirated, and the injection renewed provided the first treatment is not successful. The author claims the above as almost if not quite specific. Send to him for a copy. Fort Wayne, Detroit, Mich.

Inebriety: A Study upon Alcohol in its Relation to Mind and Conduct. By T. L. Wright, M. D. Bellefontaine, Ohio. Report from Alienist and Neurologist, April, 1882.

Save Life from Shipwreck. Debate in the U. S. Senate, March 20, 21, 22 and 24, 1882.

A Letter to the Senators and Representatives of the State of Connecticut. By J. Dobson, M. D., N. Y. City. Does vaccination offer protection from small-pox? Answer, no. Does it mitigate small pox? Answer, no. Does vaccination communicate to the healthy body diseases more loathsome than small-pox? Answer, yes. Should vaccination be compulsory? Answer, No.

Catalogue of Medical Books. J. H. Vail, successor to the jobbing retail department of Wm. Wood & Co., 21 Astor Place, 42 Eight street. Clinton hall, New York city.

Catalogue of Works in Medicine and Surgery. Published by H. K. Lewis, publisher to the New Sydenham Society, London, England.

We call especial notice to the College of Medical Practitioners, St. Louis, Mo., just inaugurated. Its object is to teach medical practitioners by practical instructions the special branches of medicine and surgery. Dean, Thos. F. Rumbold, M. D. 1225 Washington ave. Edwd. Borck, sec'y, n. w. cor. Fourth and Market sts., to whom send for particulars.

Therapeutic Progress.

On the Relations of Small-Pox and Cow-Pox.—I have been induced to bring this subject before your notice on two accounts: firstly, because I believe that Mr. Badcock's experiments, although the most extensive, and consequently the most valuable, of the kind, that have ever been practiced, have never adequately been made public; and, secondly, because (perhaps as a consequence of such want of publicity) there have recently been made earnest attempts to propagate a general belief in another set of experiments, which have been interpreted by their conductors to prove the exact reverse of what Mr. Badcock's proceedings do.

I may here state that, to my mind, Mr. Badcock's investigations go to prove the genuineness and validity of the deductions drawn from the experiments of Gassner (1801), of Thiele, of Kasan, (1839), and of Ceely, of Aylesbury (about the same date), to the effect that cow-pox is small-pox modified by its passage through the cow; although, on the contrary, the conclusions of the Lyons Commission (1865), which seems to have been adopted by Italian and Belgian Commissions (the last mentioned this year), and also strenuously advocated in this country by Veterinary-Surgeon Fleming of the War Office (pamphlet, 1881), would make it appear that small-pox and cow pox are two entirely distinct diseases, and that the former is so little altered by passing it through the cow, that it will still be infectious small-pox. Which of these two sets of experiments has had a true interpretation given to it by their respective conductors is, of course, of the greatest importance; and my endeavor now will be to satisfy you that the generally received opinion in England—that cow-pox is small-pox rendered mild and uninfectious by being passed through the cow—is that which claims our unqualified confidence and belief.

About forty five years ago, Mr. Badcock had a sharp attack of small-pox. On recovery, these thoughts occured to him: Was his previous vaccination defective? Had Jennerian lymph deteriorated? Could a fresh and more vigorous lymph be procured? At length (in 1840), he determined to keep a shed of cows himself, and to experiment upon them.

Although often failing afterward, it was Mr. Badcock's good fortune to have a first success. Obtaining from the late Sir (then Mr.) Cordy Burrows some lymph from a primary case of human small-pox, he inoculated a cow with it, and produced (in the judgement of Dr. Willis and Mr. Burrows) such perfect vaccination vesicles, that he was induced therefrom to vaccinate his own baby, and with the result, again, of satisfying the medical men that genuine vaccine pocks occurred on the little boy's arm. From these, in turn, a supply of lymph was obtained, and was propagated on other children, uniformly with the same results; many other medical men taking part in the proceedings, or using the new lymph in their practices.

Mr. Badcock's enthusiasm carried him forward, and led him, notwithstanding many failures and disappointments, to incur considerable expense in keeping up a stock of cows on which to continue his experiments. For twenty successive years did he persist; from time to time, as opportunity offered, procuring through medical men fresh supplies of variolous matter, and using it on the cows. Altogether, he practiced on two hundred cows. By observation, he soon concluded that the udder was not the most eligible part to operate on, the animals often being so impatient and resentful of the use of the lancet there as to interfere with success. Afterwards, taking advantage of the liking which many domestic animals have for their backs to be rubbed, the cowherd would engage the cow's attention by that device (which also would cause her to raise her tail); and thus Mr. Badcock found that he could proceed deliberately to insert his lymph in the thinly haired skin in the neighborhood of the vulva.

Several of the two hundred animals he inoculated repeatedly. In only thirty-seven instances were satisfactory vaccine pocks considered to result; indeed, in four of these, they were not so finely developed as to encourage a transference from them of their contents. Consequently, the total number of cases in which typical vaccine pocks were produced, and which were considered eligible for vaccinating from (during the twenty years' experiments), was thirty-three. These successful cases were watched, in different stages, by various medical men, many of whom were public or practical vaccinators highly qualified to decide on their merits; and the lymph thus obtained has been circulated throughout the civilized world. It continues to be held in high esteem in Brighton, where the three public vaccinators have each of them received gifts from the Government three several times for the high standard of their vaccinations.

The late Mr. Marson used Mr. Badcock's lymph for many years, and so did the late Mr. Ceely. The latter and Mr. Badcock commenced their experiments in the same year, unknown to each other; and Mr. Ceely, having succeeded twice only afterwards visited Brighton, and, having satisfied himself of the thorough reliableness of Mr. Badcock's doings then ceased personally to experiment further—the more readily so, in consequence of the arduousness of his other occupations as a country hospital surgeon and general practitioner.

This is a sufficient answer to Veterinary Surgeon Fleming's contention (pamphlet, 1881) that Mr. Ceely's experiments are not trustworthy, and could hardly be satisfactory to himself, or he would not have stopped at only two successes.

[I may here point out another unfortunate argument of Mr. Fleming. In trying to show that it was not genuine cow-pox that Mr. Ceely described a Mr. Pollard's five cows and one sturk to have contracted by grazing in a meadow in which the bedding of small-pox patients was spread, and then to have communicated it to their owner's hand, Mr. Fleming omits an all-important part of the narrative—viz., that a man-servant of Mr. Pollard also contracted, from the same animals, pocks on his face and hands, from which Mr. Ceely successfully propagated the disease to children, and carried it on through a great number of successive removes.

Plates 3 to 6 inclusive, at the end of Vol. x of the Transactions of the Provincial Medical and Surgical Association, 1942, are Mr. Ceely's representations of that man's pocks.]

To return to Badcock's doings: I would have you notice that from his thirty-three successfully variolated cows, and from them only, did he ever attempt to convey lymph to human beings. All the other more numerous inoculations, which produced only "minute papules" or other slight irritation, or nothing, he considered as failures. Such minute papules Mr. Ceely also considered as failures in his experiments. These facts have an important bearing on the proceedings of the Lyons Commission, as will be seen presently.

It is a circumstance of priceless value, that the late Mr. Ceely was led to have both his success and his failures represented by an able artist. Plates xv to xxi, in volume viii of the Transactions of the Provincial Medical and Surgical Association, illustrate the different stages of his eight insertions of variolous matter in one cow, all done at the same time. The four upper he styles "lymphless or abortive tubercles." They seem to be the equivalent of the "minute reddish papules" of the Lyons Commission. Plate xvii represents these as dying away on the eighth day, and the four lower insertions as developed into good pocks. From the latter, lymph was transferred to children with much success, as illustrated by some of the concluding plates in the same volume.

Now, for practical purposes, Mr. Ceely's plates may be considered to illustrate Mr. Badcock's experiments; for, as I said before, these two gentlemen after a while formed an acquaintance with each other, and considered that their respective experiments corroborated each other; after which Mr. Ceely discontinued to experiment.

Mr. Badcock is not a medical man. At the time of commencing his investigations, he was a dispensing chemist. He is now advanced in life, but still retains his wonted shrewd common sense, tempered with much modesty. He says that he never had any literary or scientific pretensions; and hence the little pamphlet, which I now show you, dated 1845, the major portion of which consists of testimonials from numerous medical men, is the only printed record which he has had made of his invaluable experiments, all of which, too, during the whole twenty years, were carried out at his own sole expense.

Sir Thomas Watson and Dr. Bristowe, in their text books on the practice of medicine, have both accepted Ceely's and Badcock's investigations, as furnishing the true bearing of cow pox to small pox; and, as long ago as 1857, in the ponderous "Blue-book" on Vaccination, compiled under the superintendence of Mr. Simon, he thoroughly does the same. These are extracts from his report: "Researches, subsequent to Jenner's, have settled this part of the question. It has been made matter of familiar experiment that the infection of small-pox may be communicated, by inoculation, from man to the cow, producing vesicles which present the physical characters of cow-pox; and that the lymph from these vesicles, if implanted in the skin of the human subject, produces the ordinary local phenomena of vaccination, from which lymph may be transferred to other unprotected persons, all of which human beings will diffuse no atmospheric infection, and will afterwards themselves ceases to be susceptible to small pox. The people thus protected are so, because the process has really given them small-pox of the most mitigated kind. The merit of this discovery belongs, in the first place, to Gassner, in 1801; and, of corroborating it, in 1840, to Ceely and Badcock. The last mentioned has, during the last seventeen years,* again and again derived a fresh stock of vaccine lymph from cows thus artificially infected by himself; has vaccinated with such lymph more than fourteen thousand persons, and furnished supplies of it to more than four hundred medical practitioners."

I fancy that now you are wondering why I take such pains to again prove what has been proved and accepted as demonstrated fact so long ago. I stated, at the beginning of this paper, why I do so—viz.: because several influential people, basing their notions on the doings of the Lyons Commission, are not only disputing the character of Ceely and Badcock's doings, but are even daring to pronounce their vaccinations to have been the means of spreeding infectious small-pox. Here is the report of the Lyons Commision. At page 56 begins the chapter headed "The local and general effects produced on the ox by the inoculation of human small-pox." Here I read that seventeen animals were variolated—the females on the vulva, the males on the perinæum or scrotum; and some of them by merely subepidermic pricks, others by punctures passing through the true skin. On each animal, no general constitutional effects were so little pronounced as totally to escape the notice of the observers at first; but, by the fifth day, there existed at the sites of the superficial punctures, in all the animals, "very small reddish papules," from two to four millimetres in diameter. This was when they had attained their maximum. By the twelfth day they had completely disappeared, never having presented the least vesicular or pustular appearance, nor any crust beyond an extremely small blackish one in the pricks themselves. At the sites of the deeper punctures (some of which had had the variolous lymph passed into them freely by a cannulated needle), less local effects still developed themselves.

Further on, we read that, from these *très petites papules rougeâtres* (very small reddish pimples), the Commission, by dint of excising and scraping, obtained enough "serosity" on the point of a lancet to inoculate the arm of a child (unvaccinated) with one insertion; and from it, in due time, they inoculated a second child—the result being that both children manifested the local and general symptoms of small-pox, the first child being more covered with the eruption than the second. Can we not find it easy to believe, with Dr. Robert Cory,† that the operator, in his anxiety to get lymph from a "lymphless tubercle," re-collected some of the variolous matter which had been placed there a few days previously. What had dried on the surface might be remoistened by the "serosity" obtained by puncturing the papula, and then be gathered on the lancet by the "scraping" described as practiced. Anyhow, the Commission considered that these two children, in the Hôpital de la Charité at Lyons, had had small-pox conveyed to them by their operations; and they were thereby deterred from carrying on their experiments in that manner any further.

Now, we can compare and contrast the doings and conclusions of the Commission with those of Gassner, Ceely, Badcock, etc.

The Commission operated on seventeen oxen, and did not, in any one of them, succeed in producing anything like a vaccine vesicle; nevertheless, they considered that they had successfully variolated every animal. It appears that, unfortunately, they had not made themselves acquainted with the details of Ceely's doings, and especially had not seen his plates; moreover, they seem never even to have heard of the more extensive experiments of Badcock. The "minute reddish papules" on the cows, which the Commission thought successes, Ceely and Badcock considered failures; and the (typical) successes of the latter occurred but seldom: with Ceely, only twice in I know not how many trials; with Badcock only thirty-seven times in more than

* This was written in 1857; and Mr. Badcock continued his experiments for some years after that.

† "Thesis on the Relation of Cow-pox and Horse-pox to Small-pox;" St. Thomas's Hospital Reports, 1879.

two hundred trials; with Gassner, once after ten failures; and similarly with most other attempts in this country.

The Lyons Commission had water-color drawings made of the appearances in their experiments, and advertised an atlas of plates to be copied from them. This atlas, however, I am informed by the intended publisher, was never issued. The Commission consisted of nine eminent men; and, during their two years of office, they conducted a great variety of experiments dearing on vaccination—a large number of oxen, horses, donkeys, etc, being placed at their disposal, as also the resources of the Veterinary College. It is, therefore, not surprising that their conclusions are accepted and approved by by most pathologists on the continent, and even by a few eminent men in the country, who are insufficiently concerning the researches of Ceely and Badcock. One of our intended visitors here (Dr. Warlomont of Brussels) has kindly presented me with a copy of his Report on Vaccination, as rendered to the Belgian State this year; and in this I see that he adopts the views of M. Chauveau and his fellow-laborers.

In conclusion, I have to thank you, gentlemen, for your patience in listening to my discursive account of this subject. I wish the performance had been undertaken by somebody else, who would have done it more ably, and with the full justice which I believe it deserves—thereby raising to a becoming height of respect in the minds of his countrymen the vaccination experiments of John Badcock; but, *Magna est veritas et præva ebit.*

P. S.—Since the above was read at Ryde, M. Pasteur's remarkable communication on Chicken Cholera and Splenic Fever, as communicated to the International Medical Congress in London, has appeared in the journals.

The resemblance between M. Pasteur's experiments and those of M. Thielé (by which he declares he artificially reduced small-pox to cow-pox without passing the small-pox through the cow) is so striking, that I here briefly append M. Thielé's account of the process.

He says: "Take some human small pox lymph, and keep it between waxed glasses for ten days; then moisten and dilute it with cow's milk, and with this inoculate a child. The lymph from this child is again to be kept between waxed glasses for ten days, then dilute with milk, and transferred to another child; and so on—the same process being repeated to a tenth child. By this time, the disease will have become as benign and non-infectious as cow pox, the successive ten children having manifested it in a gradually milder form, the secondary fever and the secondary pustules around the inoculated part having gradually ceased to occur; and thenceforth the lymph may be propagated directly from child to child (without keeping or milk-dilution) just as in ordinary vaccination."

The above was published in 1839, in Henke's Zeitschrift für die Staatsarzneikunde; and is quoted by Mr. Simon in the Blue book on Vaccination in 1857. How closely analogous is it to M. Pasteur's plan of keeping, and diluting, over and over again, with chicken-broth, a dr p of the blood of a fowl dying of chicken cholera, and then using it, by inoculation, to produce a mild substitute for the natural deadly disease!—G. F. Hodgson, M. R. C. S., Eng., etc., in *British Medical Journal* Nov. 26, 1881.

Remarks on Animal Vaccination.—In the presence of those so intimately and practically acquainted with the subject as Dr. Warlomont, of Brussels, and Dr. Martin of Boston, whom we are all glad to welcome to our meeting, it would ill become me to attempt to present a review of the question, were it not that I have been led, in my capacity as Chairman of the Parliamentary Bills Committee of the Association, to devote much study to the subject in its various aspects.

The introduction into the House of Commons, in the session of 1879, of Dr. Cameron's bill providing for the employment of lymph direct from the calf in cases where parents objected to the use of humanised lymph, led me to devote a portion of my vacation in that year to studying the working of certain of the flourishing animal-lymph establishments in Holland and Belgium. From what I saw there, I was convinced that the same system could be transplanted with success to England, and that there existed no substantial reasons why animal lymph should not be supplied by our English National Vaccine Establishment as well as human lymph. The subject seemed to me, indeed, so important, that I pervailed on Dr. Warlomont to brave the London fogs for the purpose of giving the results of his great experience in the matter before an English audience. You will doubtless all be familiar with the important and weighty conference which assembled in December, 1879, under the auspices of the association, to discuss the question, and to endeavor to bring it within the limits of practical politics. In a report, which I prepared for the use of the conference, I went at length into the history of animal vaccination in different parts of the world, and brought forward evidence to rebut the official objections to the introduction of calf-lymph. Though Mr. Sclater-Booth, whom we first approached on the subject, did not give a favorable reply to our petition, the question was afterwards thoroughly gone into by the Local Government Board; and when Dr. Cameron again brought forward his bill on June 11th, 1880, Mr. Dodson, who had meanwhile succeeded Mr. Sclater-Booth, announced that the government had taken the matter into consideration, and were prepared to undertake the supply of animal lymph as well as that of long humanisation. This concession has, unfortunately, not resulted in anything practical up to the present; since the board, a year after Mr. Dodson's promise, still reply to inquirers that their arrangements for the supply of animal lymph are not completed. It is difficult to understand why so long a delay has been allowed to take place; but it would be unprofitable, as well as vexatious, to inquire minutely into the causes, since we all know how slow government officers are to move.

There are two chief questions in connection with this subject to which it may be well to direct attention for a few moments, viz., the practicability of animal vaccination, and its efficiency. On both these points the opinions of the gentlemen who follow me will be of more value than my own; but I think I may fairly claim to have given in my report evidence almost irresistible on the subject.

It has been argued that, however useful and valuable animal lymph may be, its cultivation is a matter of difficulty; that the keeping up of the stock on a series of animals is liable to interruptions; that the lymph does not keep well, and similar objections. It is undoubtedly true that, like everything else requiring care, a certain amount of skill and patience is required for the successful cultivation of calf-lymph; but those who have acquired the dexterity necessary for the operation will tell you that they have no difficulty in keeping up their stocks, and that they are now using lymph obtained by an unbroken series of transmissions through several hundreds of animals. As regards the preserving qualities of calf lymph, it is generally admitted that, preserved in tubes, its efficacy soon becomes impaired; and all cultivators recommend its collection on points, as being the most certain method.

As to the efficiency of animal vaccination, there can be bu little question. Attempts have been made to compare the ordinary current vaccinations by calf-lymph with those performed with human

lymph from arm to arm by a specially skilled vaccinator of the highest repute. Fairly compared, animal lymph shows equal, if not superior, results of insertion to that derived from the arms of infants; and as regards its prophylactic power against variola there are undeniable proofs, as Dr, Martin and Dr. Warlomont will tell you, of the very decided advantage which it possesses in this respect. That the lymph manifests greater results on the human system than current lymph, simply shows its greater vaccinal power; and in ordinary cases the constitutional disturbance is no more intense than it ought to be in typically perfect vaccination.

In this connection, some statistics with which I have been favored by Dr. Carsten, of the Hague (who has written me expressing his regret at his inability to be with us), are both interesting and instructive. They show not only the very small proportion of failures which now attends the performance of animal vaccination at the various stations in Holland, but also the steady improvement which has been manifested since the lymph was first used.

In 1869, when animal vaccination was begun at Rotterdam, there were 67 failures out of 542 operations; last year (1880), there were only 4 failures in 2.727 operations, whilst in as many as 1,563 of these the full amount of ten vesicles was obtained. At Amsterdam, there were 19 failures in 1870—when animal vaccination was started—out of 626 operations; whilst during the last six years there has been but one single failure out of a total of 14,849 operations! Similar experience comes from the Hague, Utrecht, and Haarlem; and the gross total of all the vaccinations performed in Holland with animal lymph, including all the earlier efforts, shows that out of 60,754 operations, only 720, or little more than one per cent., have been unsuccessful. Testimony such as this, and on so large a scale, shows indisputably that the allegations made against the taking power of calf-lymph have no foundation in fact. The proportion of failure last year was indeed only 0.3 per cent.

There is but one other point to which I should wish to refer, and that is the undoubted advantage which animal vaccination possesses in its freedom from the suspicion of being concerned in the possible inoculation of syphilis into the human body If for no other reason than this, its use ought to be encouraged. On the subject of the possible inoculation of syphilis, a variety of opinions have been expressed in this country and abroad, and it could serve no useful purpose to attempt to discuss them at the present moment. But, however much opinions on this point may differ, there is a general agreement in recommending the cultivation and official recognition of calf-lymph as a means of calming the apprehensions (however ill-founded) of parents as to the qualities of the virus used. The counter objection, that calf-lymph may be the means of inoculating the vaccinated person with animal diseases, hardly needs serious discussion. On this point, and on the one of which I have just spoken, I may appropriately quote the words of my excellent friend, Dr. Dompeling, the accomplished director of the Utrecht vaccination station, contained in an appendix to an edition which he has published, in Dutch, of my little book on the "Truth about Vaccination." Dr. Dompeling, speaking of the possibility of communicating the syphilitic virus by vaccination, says:

"This guardian angel of mankind would have its lustre darkened, were we not fortunate enough to possess a means whereby we can avoid the danger, and guarantee it against all spot or blame: I refer to the use of animal vaccination—that is, the inoculation of matter originally derived from the cow and communicated to the calf, and which has never passed through the human body. In Holland, *parcs vaccinogènes* have been already for several years in operation. That in Rotterdam was established in 1868; then followed the Hague, Amsterdam, and in 1873, Utrecht; and subsequently several other towns. Many thousand persons have been vaccinated with animal lymph, and preference is more and more given to this method. It seems as if the objections (even the conscientious objections) against vaccination were beginning to give way, and people were more willingly induced to submit themselves to this salutary treatment.

"The advantages of this kind of institution, of which there has even been one in Japan since 1874, are great, because as much vaccine matter can be produced at any time as is necessary, simply by inoculating more calves; and this is of the greatest importance in times of epidemics of small pox, or in such a panic as we experienced last summer. Erysipelas, which appears often to occur as a result of human vaccination, is, according to Dr. H. A. Martin, of North America, and also our own observation, very seldom seen. The mishaps are rare, and the results most excellent. Whether the protection afforded against small pox is as good as, or better than, that resulting from humanised lymph, time must teach. Even if the principle of immediate connection between a number of good cicatrices, and protection against small pox, is to be established, this can only be shown by time; but we may with reason wait for this.

"Has, then, animal vaccination no dark side? We do not know. It has several times been asked whether any morbific matter can be communicated from cattle to man by animal vaccination. In the first place, that horned cattle are liable to syphilis is most strongly denied by, amongst others, Depaul, who has collected evidence on the subject, and by Ricord. Veterinarians are of opinion that, in opposition to the horse, in which some diseases are both difficult to distinguish, and are really capable of being communicated to man, so that no use can ever be made of inoculation from it, the diseases which occur in calves and heifers are on the one hand not capable of being communicated, and on the other hand have such distinctive characters, that no one who is not exceptionally thoughtless or careless would make use of an animal so diseased. Besides, even in slight maladies, such as diarrhœa, the development of the pock is hindered, and it is formed imperfectly, or not at all. To render precaution complete, it is serviceable to have a veterinary surgeon attached to every *parc vaccinogène*, as has been the case in Utrecht since the establishment of the institution, which is an annex to the veterinary school; this leads to security in the genuineness of the lymph, which is taken exclusively from calves, and, just as in the other *parcs vaccinogènes* in our coutry, has been originally transmitted from the cow, and has never passed through a human body."

I would conclude in the words of Dr. M. Hay, of Vienna, who says: "Animal vaccination belongs to the future. Its general use as far as possible—a gradual substitution of it for human lymph—should be the aim of all who see in vaccination one of the most happy discoveries of preventive medicine."—Ernest Hart in *British Med. Jour.*

THE TOPICAL USE OF IODOFORM.—In presenting to you this evening a paper upon the topical use of iodoform, it is not my purpose to enter into generalizations and theories of its mode of action, but simply to confine myself to a few practical points derived from my own experience in a variety of cases in which the drug has proven beneficial in my hands; its application in certain conditions being followed by satisfactory and more rapid results than by any other mode of treatment.

Fully cognizant of the fact that, like most new remedies iodoform has had placed to its credit

claims which are in many respects unwarranted, I do not vaunt it as a panacea in all cases requiring topical treatment, but will venture the assertion that, as an application, in a large variety of cases in which there is a solution of continuity of soft parts it far surpasses all other known remedies, and has a wide range of usefulness, being a powerful antiseptic, as well as acting as an alterative to diseased surfaces.

With these few preliminary remarks, I shall now proceed to the consideration of some of the conditions in which it is applicable.

Venereal Sores.—For the past three years my only form of treatment of this class of ulcer has been the application of iodoform in powder, dusted over the diseased surface twice or three times daily, and the results have uniformly been most gratifying. In all such cases, without a single exception, and I have treated quite a number, the cure has been remarkably rapid, and I have seen the "soft" sore heal within three weeks, and the hard, or true Hunterian, chancre, which usually runs a course of from six to eight weeks, or even longer, I have seen completely cicatrized in four weeks, and sometimes less, under this treatment.

It is not an uncommon occurrence to see venereal ulcers take on a phagedenic aspect. In such cases iodoform is equally efficacious, and, in my opinion, is the only treatment to be pursued. I can best illustrate its effects by the following case, which was the worst of its kind it has ever been my misfortune to see.

L. A., age 26, unmarried, called upon me at my office, stating that, about ten days before, he had noticed the appearance of a venereal sore upon the glans penis, just behind the corona. Three days before I saw him paraphimosis had occurred, and the prepuce had remained behind the swollen glans, notwithstanding all his efforts to replace it.

You can imagine, better than I can describe, the then existing condition. Sloughing had commenced, and it required but a slight clip with the scissors to divide the constriction and reveal an extensive phagedenic surface extending around and denuding the cavernous bodies to such an extent that they were so separated as to allow a view of the urethra below; a portion of the glans on one side had sloughed away, and there was a fistulous opening in the dorsal side of the urethra; constituting, upon the whole, a most unpromising case.

No other treatment was instituted beyond the removal of the necrosed tissue and the local application of iodoform, and in three weeks entire cicatrization had taken place, leaving him with but half his original glans penis, and a small opening in the dorsum of the penis communicating with the urethra, through which the urine flowed upon micturition. This latter condition was only cured by the actual cautery.

As a dressing in suppurative buboes, iodoform has no equal, producing as it does rapid granulation after the evacuation of the contained pus. Although recommended in solution in collodion as sorbefacient to be painted on inflamed inguinal glands for the purpose of preventing suppuration, I must confess that I have not found it answer my expectations.

Rodent Ulcer.—T. W., negro, age 35, presented himself to me on October 11th, 1881, with the following history: About one year previously had noticed a discharge of mucous from the nose, which he thought at first to be nothing more than an ordinary catarrh, which continued some weeks, when the discharge became purulent, and after a period became exceedingly offensive. Ulceration of the mucous membrane of the nasal passages set in, and gradual destruction of tissues took place, and was progressing very rapidly. Examination revealed complete destruction of the septum and ulceration of the entire nasal cavity, as far as could be seen with the speculum. There was partial necrosis of the vomer and ulceration of the wings and tip of the nose; the lip was also denuded of cuticle where the acrid discharge had come in contact with it. The whole ulcerating surface presented a dirty, grayish appearance, and there was a profuse, purulent, and very offensive discharge, such as manifests itself where there is necrotic bone.

There was no history of either syphilis or scrofula. The man otherwise was robust and apparently in good health. Had been treated by several physicians in his neighborhood without result.

Treatment was begun by applying thoroughly to the whole diseased surface an ointment, composed of one scruple of iodoform to one of cosmoline.

The change in two days was remarkable. The discharge had notably decreased and was no longer offensive, and the whole diseased surface was granulating, The application was continued three weeks, and the mucous membrane of the nose presented a natural appearance. There remained, however, a slight discharge, which examination showed to proceed from the vomer, which was in a state of necrosis. I removed the necrosed portion of bone and applied to the spot the iodoform in powder, and he was sent home completely cured November 12th. The immediate change in the appearance of the diseased surface, and the rapidity with which recovery took place, were remarkable, and more than I expected when the treatment was instituted.

Other conditions have presented themselves in which I have used iodoform with the most satisfactory results, and not wishing to detain you, I shall merely mention them, without entering into details of cases.

In fissure of the os uteri, which frequently happens, especially after first labors, no application is so useful as iodoform. True, many of these cases get well without any treatment, but we are sometimes called upon to treat cases in which, owing to existing conditions, spontaneous union does not take place, and the fissure remains, giving rise to much annoyance.

Until I used iodoform, I had experienced much trouble in the treatment of a few cases of this nature which came under my observation, but since I have been using the drug, I have seen two cases which got well in ten days under its use.

In erosions of the os or vaginal portion of the cervix, whether due to endo-cervicitis or not, iodoform is the best application. I admit that this condition is frequently maintained by endo-cervical disease, and that by curing the disease the erosions will disappear; but iodoform acts admirably in chronic cervicitis, and doubtless by its influence on this disease hastens the healing of the erosions.

In treating such conditions, I generally apply a tampon of absorbent cotton saturated with a solution of iodoform in glycerine.

I was recently called upon to treat a case of gonorrhœa in a female, which was completely cured in six days by the use of hollow suppositories containing iodoform.

As a sorbefacient and anodyne in epididymitis and orchitis, this remedy meets the indications admirably. Under its use the enlarged gland rapidly returns to its normal size.

In syphilitic ulceration of mucous membranes, I have used iodoform with the most happy results.

While discussing this remedy, we are reminded of the fact that its odor makes its use very objectionable, and frequently causes us to hesitate in using it on that account. Patients always object to its disagreeable, pungent, all-pervading odor, and many have been the devices for rendering it inodorous.

I have as yet failed to find anything which will completely deodorize it. Tannic acid in the proportion of one grain to four of iodoform will partially destroy the odor, but the best agent is coumarin, the alkaloid of the Tonqua bean, a sample of which I here show you. This alkaloid is almost,

but not completely, a deodorizer. The mixture which I now show you is deodorized, but inasmuch as the alkaloid is more volatile than the iodoform, a slight odor of the latter can be detected after exposure to the air for some length of time. One grain of coumarin will deodorize forty grains of iodoform.

However this deodorizer may act when the drug is applied externally, when used as an intravaginal application, nothing will prevent emanation of the odor, for it is very rapidly absorbed, and while most of it is given off by the urine, a small portion is exhaled by the skin and lungs, and, of course, is very soon perceptible. Therefore, when used otherwise than externally, no advantage is gained by deodorizing the drug with compounds which, possibly, may exercise a deleterious influence upon its efficacy.

It has not been my purpose to elaborate upon the discussion now going on in medical journals upon the uses and dangers of iodoform, but simply to throw out a few hints which will lead you to test the drug in the classes of cases indicated above, trusting that you will find it as useful in your hands as it has proved in mine. L. F. Salomon, M. D., in New Orleans *Med. & Surg. Journal*, May, 1882.

Treatment of Chronic Prostatic Enlargement.—Mr. Thos. Smith, surgeon to St. Bartholomew's Hospital, in a recent lecture published in the London Medical Times and Gazette, gives the following advice on the above subject:

Your assistance will rarely be sought in the early stages of this disease; but should you be consulted by an elderly patient suffering from undue frequency or difficulty in micturition, it will always be prudent to make a digital examination through the rectum, to ascertain the condition of the prostate. The examination is best made with the patient lying down on his back. Your finger-nail being filled with soap and the finger well oiled or greased, it should be introduced very slowly, so as not to excite spasm of the sphincter.

Should you judge that the urinary difficulty is caused by prostatic enlargement, the occasional passage of a full-sized instrument will often relieve the inconvenience, and, if steadily persevered in at regular intervals, will generally secure the patient against all the more serious consequences of the disease.

In cases where the difficulty in micturition has gone on to produce an inability to empty the bladder completely, it is of primary importance that at least once in twenty-four hours the urine should be all drawn off; but in carrying out this plan it is necessary to exercise caution, lest by suddenly emptying a greatly distended bladder you should produce a complete paralysis of the organ, with a loss of the power of voluntary micturition and cystitis.

As a general rule, if there be not more than one pint of retained urine in the bladder—that is urine the patient is unable to pass for himself, it may be safely drawn off at once. But if there be more than this of residual urine (and there may be several pints), you should draw it off by installments, taking away a little more each day, until the bladder is completely emptied.

This complete evacuation of the bladder, when once accomplished, should be repeated each day, by means of an instrument, and for the purpose an india-rubber catheter, bulbous-ended or a Coude catheter, should, if possible, be used.

By these means, in early stages of the disease, the patient will generally regain the power of normal micturition, or, at all events, if this result be not attained, he will be secure from the worst consequences of the disease.

The treatment may be carried on by the patient himself if you will be at the pains to teach him how to pass an instrument—now-a-days a comparatively simple process, owing to the great improvement in catheters; for you should know that since the introduction of the various forms of soft catheters now in use, the instrumental treatment of prostatic enlargement has lost more than half its terrors and much of its danger.

The large silver prostatic catheter—at one time almost the only instrument used in these cases—is truly a formidable weapon with its long shaft and wide-sweeping curve. It was constructed to ride over the prostate, but in the hands even of experienced surgeons it frequently failed in the performance of its normal functions and rode under the gland, or through its substance. Used with a strong and steady hand it rarely failed to draw off water. As an instance of its power in this respect, I may mention a case within my knowledge where a prostatic catheter in the hands of an energetic surgeon drew off some gallons of water, which, however, a post mortem examination disclosed to have come from the peritoneal cavity.

I will suppose now that you are called upon to treat a patient with retention of urine dependent upon enlarged prostate. The difficulty will usually have come on at night time; the patient will, as a rule, be advanced in years; and the prostate can be felt in the rectum unduly prominent. In such a case let me advise you first to try a flexible red rubber catheter, of full size; it will often find its way round a corner and through a urethra which would be impervious to a more rigid instrument. This failing, you should try to pass the same catheter with a stout wire stylet reaching two-thirds of the way down the instrument; this gives you more power to push the catheter onwards, and leaves the end flexible, to accommodate itself to the distorted urethra.

Next in order you may try the Coude catheter; then, if necessary, the bulbous French instrument, a gum elastic, without and with the stylet; and lastly, others failing, a silver instrument.

Whatever instrument you may use, let it be full size; it will go in as easily as a smaller one, and is less likely to damage your patient. Keep the point of the instrument on the upper wall of the urethra: and, above all things, use no force.

After drawing off the water in a case of retention, the patient will, for a time at least, require the regular use of a catheter until he recover his power of voluntary micturition; and should there have been great difficulty in introducing the catheter, I should advise you to tie it in for the first twenty-four hours.

In the subsequent treatment of these cases of prostatic retention, in addition to other troubles, you will often have to contend against an increasing frequency in micturition. The frequent desire to pass water must be resisted as much as possible by the patient, or it will grow upon him. The bladder must be completely emptied, and, if need be, washed out, at regular intervals, and the patient exhorted not only to resist by a strong effort of the will the solicitations of his bladder, but to avoid all sights and association that are likely to suggest to him the necessity of micturition. With this object in view, you should counsel your patient to keep his catheter and chamber utensil out of sight; as soon as possible to leave his bedroom during the day; and to occupy his mind by any pursuit which may draw his thoughts away from his urinary necessities.—*Ohio Medical Journal.*

The Drug Store of the Future.—Let us look ahead ten or twelve years and see ourselves as druggists under the unchecked working of the trademark system. One of us, who has been out of business during these ten or twelve years, calls upon his old friend the druggist of that time and asks for the best physician in the neighborhood.

The druggist answers: "Oh, there is no difference in any of them; they are all alike. You see things are different now from what they were when you were in the business—excuse me, when you were a member of the profession. We have dropped that term now and call it a business. You see the physicians have gradually worked into the plan of asking the patient what is the matter with him, and then, by reference to a little pocket remedy book, well indexed, he finds the article that suits his case and prescribes it; and they all do the same. So I say they are all alike. You see the manufacturers have meetings every three months and add to and correct these lists. They have pooled the profits, and it don't make much difference to the manufacturers which articles are sold, as they all get their proportion of the profits. I have one of these books and will show you how it reads. The title is, "The Consolidated Trade-Mark Manufacturers' Manual; for Physicians only.' If a man says he is bilious, the physician turns over to B, and follows down through Ba, Be, to Bi,—there, you have it: 'Biliousness; for all cases of biliousness use Hyfalutine, Pseudocetine, etc., etc. For bad cases use Duodenine, etc.' You see the physician has a long list to choose from, and he selects the name that strikes his fancy and orders it for him. The druggist wraps up the article and charges him the price he can get, and the patient takes the medicine; the next time he feels the same way he calls for the same medicine, and we sell it. Oh, yes, it affects the income of the physician and our business, somewhat, but what can we do? Away back in 1881–2 we made an effort to stop the encroachments of the trade mark preparations; but, owing to a lack of interest in the matter on the part of the physicians, who kept prescribing them, and the druggists, who continued to sell them, we failed to do anything; and if we could do no good then, what chance have we now? Our physicians have forgotten the old way of diagnosing a case for themselves, and the druggist of to-day knows nothing of pharmacy. Why, we have not had a drug mill in this store for years. My clerks are better posted in the kinds of leather in the shoes we sell, in the quality of calico, in the quality of crockery ware, than they are in the drugs; for, to tell the truth, we sell very little else in the drug line than these ready-prepared medicines. There are one or two old fossils here who prescribe outside of these, and they give us an endless amount of trouble. We have to make up a pint of sarsaparilla syrup at a time, and other preparations like that, just for their benefit. We tell them that the preparation known as Elucidine is the same thing. He says, 'I won't have it. I once subscribed to the code of ethics which barred those preparations, and I will not prescribe them on principle.' We laughingly tell him there is no principle in medicine, and that argument shuts him up. Happily, these cases are rare, and we will not be bothered with them long. We don't make these preparations, for the reason that we dare not. You see they are the personal property of the manufacturers, and prosecution follows swiftly on all attempts to encroach upon their ground. You remember, in 1882, Chris. Rodenbach, of Buffalo, was arrested for making Syrup of Dover's Powder; he compromised and promised not to make any more. Several other prosecutions by other manufacturers followed, and then all was serene. No one now attempts to make these preparations.

"What has become of the American Pharmaceutical Association? Well, it's hard to say. They held a meeting in 1881 and never met again. Some one offered a resolution to the effect that the trade-mark system was endangering the science of pharmacy, etc.; the trade-mark manufacturers were there in full force and opposed it. Prof. Maisch, Albert Ebert, and a few others, made a hard fight, but the lay members were indifferent, and the discussion raged so hard that the association disbanded and the resolution did not pass. The American Medical Association are in the same condition. They have not been heard of for years. You remember that one of their members offered a resolution at their meeting in Richmond, in 1881; this was laid over to be acted upon at their next meeting, in St. Paul, Minn.; this resolution was finally brought out and the discussion that followed was long and warm; I might say, very warm. There were some who vigorously upheld the resolution; one in particular was that old fossil whom I spoke of as giving me so much bother. The opposers were so numerous and loud-spoken as to override the views of the weaker ones, and the war went on. Finally, the professors of many of the colleges, who had recommended these copyrighted or trade-marked preparations and been liberally advertised thereby, joined the opposition. This so incensed the others that they withdrew, and the American Medical Association vanished like a cloud. A Pharmacopœia? No, we have none; we don't need one; why, the edition of 1880 has not been published to this day. The only text-book we need now is the Manual and Price List of the Consolidated Trade-Mark Manufacturers."—*The Pharmacist, May.* 1882.

Treatment of the Diarrhœa of Phthisis.—In the Lancet, Dr. C. Theodore Williams says, speaking of the peculiar diarrhœa of phthisis, that, arising from ulceration, it requires very careful attention. The great point to be kept in view is the healing of the ulcers, and this can only be attained by shielding them from all irritable substances, and by promoting a healthy granulating action. The treatment, in fact, resolves itself into three sets of measures.

1st. Rest in bed and the administration of only such food as can be quickly and easily assimilated without causing much distention of the intestines, or accumulation of flatus. Such are chicken broth, beef and veal tea, milk gruel, blanc mange, always combined with liquor pancreaticus, and prepared after the admirable methods of Dr. William Roberts, of Manchester. Dr. Jagielski recommend koumiss specially in these cases.

2d. Warm applications to the abdomen, in the form of linseed poultices, turpentine stupes, or hot-water fomentations, to reduce the pain and promote a certain degree of derivation to the skin. If the pain be severe, I have found the application of a small blister over the area of tenderness on pressure, as recommended by Dr. J. E. Pollock, very advantageous. I have noticed, in some obstinate cases, that when the blister has risen, the diarrhœa has been considerably reduced, and pain existing in the abdomen at the same time has subsided.

3d. Internal medicines. When we have reason to believe that the ulceration is slight and confined to the small intestines, the diarrhœa may be treated by bismuth and opium, or by some astringents. The liquor bismuthi et ammoniæ citratis (B. P.) is a convenient form, but not always so effective as the powdered carbonate or the nitrate of bismuth in ten to twenty grain doses. Dover's powder combined with it in ten-grain doses is often effective. The most powerful astringent is the sulphate of copper in a quarter to half-grain doses, combined with half a grain to a grain of solid opium. Of the various vegetable astringents I have found tannic acid in four-grain doses to answer best, far better than rhatany and catechu, but in all cases I combine it with a certain amount of opium, to reduce the irritability of the ulcers. Indian bael, especially a preparation of the fresh fruit, is often efficacious in checking the diarrhœa if the ulceration be limited. If, however, the ulceration attack the large intestine as well as the small, it is obvious that more local treatment is advisable, and

resourse should be had to injections or suppositories. The enema opii (B. P.) administered twice a day is sometimes sufficient, and may be strengthened by the addition of acetate of lead, four grains to an injection, or of tannic acid, five grains. This is a small injection, and it is doubtful how far its local effect reaches. Where the ulceration is very extensive, and involves the greater part of the large intestine, an attempt ought to be made to apply the remedies more thoroughly to the mucous membrane; and for this purpose injections of larger amount—from a pint to a pint and a half—may be used, consisting of gruel or of starch, or, best of all, of linseed tea, and all containing a certain quantity of opium (thirty to forty minims of the tincture). I would specially recommend the linseed tea, as it appears to exercise the same beneficial effect on the ulcers of the large intestine as it does in follicular ulceration of the throat. One of the most obstinate cases of intestinal tubercular ulceration I ever witnessed yielded to linseed tea injections, after almost every other treatment had been vainly tried, the ulcers apparently healing, the diarrhœa ceasing, and the patient living for two years afterward, and dying of pulmonary lesions. In cases where the stools are very fetid, I have added glycerine or carbolic acid to the injection with advantage. In many cases, however, it is desirable to give the large intestine as much rest as possible, and not to stretch the ulcerated mucous membrane through any distention by fluids; in these cases suppositories of morphia (from half a grain to a grain), or of the compound lead one, or of those of tannic acid, are indicated, and the treatment of the diarrhœa arising from lardaceous degeneration of the intestine is not very hopeful. Where the very channels of assimilation —viz.: the villi—have undergone degeneration, as well as the various structures from which the succus entericus is poured out, it is difficult to see how treatment can restore the lost tissues. Dr. Dickinson's researches show that the loss of alkali is the chief characteristic of the disease. Dr. Marcet's analysis show that the chief chemical feature is deficiency of phosphoric acid and potash, and excess of soda and chlorine, and on this principle we should give phosphate of potash When, however, the disease has so far advanced as to reach the intestine, it may be considered beyond any effective general treatment. We must be content to restrain the diarrhœa if we can, by astringents, the more powerful the better. Tannic acid in from two to four-grain doses, with dilute sulphuric acid, sulphate of copper or sulphate of zinc are the most useful, and injections of these substances do some good.—*The Canada Medical Record*, April, 1882.

The Copyright Controversy.—We have observed with pleasure the deep and growing interest manifested of late in the ethical and commercial aspects of copyright preparations, in their relations to both the medical and pharmaceutical professions. The referred resolution of the American Medical Association, at its recent meeting, providing that "the spirit of the code of ethics forbids a physician from prescribing a remedy controlled by a patent, copyright, or trade-mark," has been accepted by the copyright advocates as a black-flag signal, and their protest against the threatened ostracism of their preparations, has risen apparently to the magnitude of an organized rebellion against the powers that be in the medical profession. These powers have been animated and valiantly supported by the redoubtable knights of anti-copyright, whose keen, swift lances have hurled deadly hatred at the hosts of "nostrum-venders," "copyright banditti" and their allies of the professional press.

The druggists of the country have, for the most part, regarded the conflict with noteworthy indifference as to the result. Appeals for sympathy and support proceeding from both sides have been met with ill-omened silence. This silence may be explained upon a very plausible hypothesis. Pharmacists have very positive convictions with regard to the proper domain of their profession, and have viewed with pardonable jealousy the encroachments upon their territory of the manufacturing pharmacists. It is their especial and exclusive privilege, they maintain, to compound the medicines required in filling prescriptions. For the physician to prescribe "ready-made" preparations is, they contend an insult to their intelligence and professional skill; and for the great manufacturing pharmacists to advertise for or cater to this demand from physicians, is a usurpation of the rights and duties of legitimate pharmacy. "Not only do these prepared remedies," they declare, "usurp our privilege to compound, in so far as they are prescribed, but, on account of the multitude of manufacturers and the greater multitude of remedies, our shelves are burdened with an appalling lot of costly stock, for which there is no sale and considerably less profit. Our 'educated' physician frequently discovers, through circulars and advertisements from manufacturing firms, an 'invaluable remedy' for which he will have much use in prescriptions, and we are thereupon requested to order a liberal suppy. The supply is hardly in store before the demand ceases, and we are left stranded with the 'invaluable' almost a dead loss on our hands. The evil is common alike to copyrighted and non-copyrighted preparations. We care not a straw for the distinction. Whether our loss arises from a new uncopyrighted medicine, with which physicians are given to experimenting at our expense, or from a copyrighted article, which encroaches upon our prescription business and reduces us to the level of mere traders, we are not especially interested; but we do most emphatically protest against being crushed between the millstones of medical empiricism on the one side, and a manufacturers' usurpation on the other."

This view, which completely ignores whatever ethical distinction may be urged as between copyrighted and uncopyrighted preparations, is probably a dominant one among retail pharmacists, and the important question consequently presents itself, Will ready-compounded preparations continue in extensive demand, or will the requisite measures be adopted to suppress their sale and restore to the retail pharmacy an exclusiveness in compounding? There are a number of reasons why this latter question must, for the present at least, be answered in the negative. So long as specific manufactures are prescribed, it may be assumed that the pharmacist must employ them. Moreover, many physicians are disposed to trust the skill and knowledge of the manufacturing pharmacist, rather than that of their local druggist, and consequently will continue their preference for ready-made preparations. The fact that a certain class of these preparations are sold at a less price than they could be prepared for by the retailer, is a further reason why they will continue in demand. So long as the work can be done as well or better, and at less cost, in the manufacturer's laboratory than in the retail pharmacy, so long will an insuperable bar exist against the latter gaining the coveted monopoly. It is, however, certain that a determined opposition is developing against all remedies the full formula of which is not furnished the pharmacist, as well as the physician. The former is entitled to know the chemical affinities of every drug or preparation which enters into prescriptions, in order that disastrous incompatibilities may be avoided, and the precise nature of every prescription compounded or sold, fully understood. Any manufacturer who disregards this requirement renders himself liable to classification with "patent medicine" impostors and quacks.—*The Druggist*, April, 1882.

HISTORY OF THE WORD "DRUG."—An interesting article by Prof. Fluckiger, in the Archiv der Pharmacie, for last August, has recalled our curiosity to the problem involved in the history and etymology of the word "drug."

Dictionaries give us two quotations from English literature at the end of the fourteenth century, which are supposed to be the first occurrences of the word in our language. The earliest is in Langland's "Vision of William concerning Piers the Plowman," written in A. D., 1377.

> Lyf leuede that lechecraft lette shulde elde
> And dryuen away deth with dyas and dragges.
> Text B. Pass. 20, lines 172 and 173.*

There are 27 known MSS. of this poem; not all of them contain the passage; and in the last three words there are many various readings. *Dyas* is the form in MS. Ur.; *dias* in C, O, and M; *dyetis* in T; *dayes* in R and P; *diares* in E; and *diagragmator* (!) in B. *Dragges* is the reading in F and T; *drogges* in W, and *drouges* in S.

In modern English the lines read thus: Life believed that leechcraft should let, or hinder, age, and drive away death with dias and dragges. The readings "dias" or "dyas," and "dragges" have most support from the MSS.

The second passage occurs in Chaucer's lively description of a metropolitan physician of the fourteenth century. The passage is less known than it ought to be, so we transcribe it. A party of 29 pilgrims met one night at the Tabard Inn in Southwark. An inn still called the Old, Tabard stands on what is said to be the original site. Chaucer proceeds to describe the company in his Prologue. At line 413 he begins:—

> With us ther was a doctour of phisike
> In all this world ne was ther non him like
> To speke of phisike, and of surgerie:
> For he was grounded in astronomie.
> He kept his patient a ful gret del
> In houres by his magike naturel.
> Wel coude he fortunen the ascendent
> Of his images for his patient.
> He knew the cause of every maladie,
> Were it cold, or hote, or moist, or drie,
> And wher engendred, and of what humour.
> He was a veray parfite practisour.
> The cause y knowe, and of his harm the rote,
> Anon he gave to the sike man his bote [remedy].
> Ful redy hadde he his apothecaries
> To send him dragges, † and his lettuaries,
> For eche of hem made other for to winne:
> Hir friendship n'as not newe to beginne.
> Wel knew he the old Esculapius,
> And Discorides, and eke Rufus;
> Old Hippocras, Hali, and Gallien;
> Serapion, Rasis, and Avicen:
> Averrois, Damascene, and Constantin;
> Bernard, and Gatisdea, and Gilbertin.
> Of his diete mesurable was he,
> For it was of no superfluitee,
> But of gret nourishing, and digestible.
> His studie was but litel on the Bible.
> In sanguin and in perse [high color] he clad was alle
> Lined with taffata, and with sendalle.
> And yet he was but esy of dispence:
> He kepte that he wan in the pestilence.
> For gold in phisike is a cordial;
> Therefore he loved gold in special.

Dias, or dyas, in the passage from Piers Plowman, needs a word of explanation. Cotgrave (1611) says it is "a term set before medicinal confections that were devised by the Greeks." Diachylon and diacodium and diapente are almost the only surviving examples, but nearly every drug is represented in the works of the older pharmacists by a confection called "dia," as diamoron, diagrydium, diamargariton, &c. Baily gives "Dia, a Greek preposition . . . often joined to the names of physical compositions with that of the principal ingredient; as Diascordium, &c." Dias were generally, if not always, electuaries or confections. So late as 1753 the *Electuarium e scordio* of the London Pharmacopœia answered to the Diascordium of the Edinburgh. Piers Plowman's "dias and dragges," therefore, correspond exactly to Chaucer's "dragges and his lettuaries." Dictionary makers and editors seem to be sure that "dragges" means drugs. Pharmacists will not agree with them. Apothecaries do not send drugs to patients, they dispense prepared medicines: like powders, mixtures, and pills, dias and dragges, or dragges and lettuaries. "Drug" always means crude materials for medicines so far as we have evidence. Popular metaphor would never mix drugs and draughts or drugs and dias. Dragges must be some form of medicinal preparation corresponding more or less to electuaries. Skeat, in his Etymological Dictionary, acutely remarks, that "dragges" cannot be the same word as "drogges" (or "drugges"); the former is from the old French 'dragée.'"* Dragées were a kind of sweetmeat, perhaps corresponding to our lozenges; but we cannot speak with certainty.

This, we are convinced, is the solution. The word "dragges," of the fourteenth century, has nothing to do with drugs: it is simply the name of a class of pharmaceutical preparations parallel to electuaries, and known in French as *dragees.*—*Am. Pharmacist*, March 11, 1882.

THERAPEUTIC ACTION OF CHLORATE OF POTASSIUM. — Your request for notes of experience in the use of chlorate of potash, or potassium chlorate, as I suppose we must now call it, in connection with your recent interesting article on the "Treatment of Scrofulous Diseases of the Skin," recalls to my mind a case which I treated many years ago, and which was to me very instructive.

On the nineteenth day of October, 1860, I was called to see Miss G., of 388 Fifth avenue, New York, aged 20 years, of English parentage. She was chlorotic in a marked degree, suffered from palpitations, was very easily fatigued, had frequent and severe attacks of gastrodynia, and quite a profuse leucorrhœa. For the gastrodynia I prescribed the following:

> ℞ Bismuth subnit., ʒiv.
> Morph. sulph., gr. j.
> Potass. cyanuret., gr. ij.
> Div. in ch. No, 16. M.
> S. One after each meal.

These powders had a very happy effect, relieving the painful attacks in the stomach almost from the first. For the depraved condition of the blood, the routine treatment already tried having proved ineffective, I gave her chlorate of potash in fifteen grain doses, thrice daily, with elixir of calisaya as a vehicle. I did this on the theory which has always seemed to me a reasonable one, that this salt possessed the property of conveying oxygen to the blood globules. For the vaginal discharge I simply ordered astringent injections. I should not have remembered this feature of the case but for the fact that the patient innocently and not inaptly called them "virginal" injections. Whatever the value of the theory on which the potassium chlorate was administered, the practical result was that her color began to improve in an astonishingly short space of time. The dyspnœa and palpitations rapidly abated, and her name disappeared from my visiting list in a little less than two months from the date of my first visit. It has been my practice ever since to administer this remedy in anæmic and chlorotic conditions, and usually with very happy results, but singularly enough it has not occurred to me to use it in scrofulosis. I can see no reason why, if it acts so efficiently in strumous affections of the skin, it should not also

*We quote from the edition prepared for the Early English Text Society by the Rev. W. W. Skeat.

†Some texts read "drogges" and "drugges."

*Provencal *dragea*, from Italian *treggea*, a sugar plum (Brachet), derived from Greek *tragemata*, dried fruits, plural of *tragema*, something nice to eat; which is again derived from *trogein*, to gnaw, the root in Sanscrit being *tar*, to rub. Rev. R. Morris, in the glossary to the Clarendon Press edition of Chaucer's Prologue, gives modern Greek *tragala*, sweetmeats, from *trogalia*, raw fruits at dessert, or sweetmeats. Skeat derives the word "dredge," to sprinkle meat with flour, from the Provencal *dragea*.

in those of the deeper seated tissues. Acting on the hint your paper has given me, I have already begun to administer it in a few cases of this nature, and shall await the result with much interest. As you do not in any way limit the class of cases in which you ask for memoranda in regard to the use of this salt, you will perhaps bear with me if I add a note in reference to its action in diphtheria and acute tonsilitis and pharyngitis, especially of the aphthous and ulcerative type. It has always seemed to me that these latter affections were just as truly systemic diseases as diphtheria itself. Trousseau, as you will remember, classes them with cutaneous eruptions of under the title, *Herpes Gutturalis*. For many years, therefore, I have ceased treating them by local applications, and relied entirely on the internal use of potassium chlorate. I have supposed, however, that in these disorders it owed its virtue to the antizymotic action of the chlorine, and acting on this belief, I have been in the habit of directing it to be so compounded that a portion of this gas should be set free and taken up by the vehicles. The rapidity with which it affords relief when thus treated emboldens me to give you my prescription, at the risk of repetition, as I have already published it perhaps more than once:

℞. Potass. chlorat.. ʒviij.
Acid. hydrochlor., ♏viij.

Rub together until greenish fumes of chlorine begin to rise, then add:

Aq. cinnamomi., f ʒviij.

S. Tablespoonful every two hours for an adult.

Observe that it is a most essential part of this prescription that it should be compounded exactly as prescribed. I have known druggists to copy it and leave out the instructions as to the development of the chlorine altogether. This would simply give an *acidulated* instead of a *chlorinated* solution. Of the fact that the efficiency of the chlorate in these affections is very greatly enhanced by this simple expedient there can be no question.

Whether the alkalies act by virtue of their own inherent qualities, or rather as common carriers, thoroughly to be depended on for the certainty with which they convey other elements to their destination in the tissues, and the faithfulness with which they deposit them there, is open to discussion. Taking the undoubted fact of their action on the liver, and their correction of abnormally acid conditions, I have always been inclined to maintain the latter view.—*Dr. Benj. Lee, in the Medical Bulletin, March* 7, 1882.

Intestinal Digestion. — Dr. Robert Meade Smith, the Demonstrator of Physiology in the University of Pennsylvania, has been engaged for some time past in the study of intestinal digestion. Our entire ignorance of any positive knowledge of the composition of the secretion of the small intestine, and of its action on the different foodstuffs, depends upon the failure of all attempts as yet to secure a pure secretion, free from pancreatic or biliary juice, and yet keep the intestine in its normal condition. The method of Thiry, the best process yet described, of resecting a loop of intestine, one end of which is closed, and the other fastened to the opening in the abdominal walls, while the continuity of the intestine is restored by again uniting the divided canal, has entirely failed to give any reliable results; for, although the isolated loop still has its circulation maintained, the necessary removal of the mucous membrane of the part experimented on from contact with the other intestinal juices and contents of the intestine, and its consequently enforced functional inactivity, renders it impossible to regard its secretions as at all representing a normal intestinal juice.

The method which Dr. Smith has found to give the most reliable results, is to establish a fistula in the duodenum, about six inches below the pancreatic duct, using a tube similar to the ordinary Bernard gastric canula, the inner plate of which is rolled on itself, so as to form a section of a tube, and thus adapt itself to the curved anterior walls of the intestine; the stitches which fasten the tube in the gut also serve to unite the canal to the abdominal walls and to close the wound in the latter. Dogs subjected to this operation usually do well, and in from two to three weeks are entirely recovered from the effects of the operation. When it is desired to collect the intestinal secretion, the animal is allowed to fast for thirty-six hours, so as to remove all *débris* of food from the intestine, and a thin rubber bulb, with a narrow tube, is then passed in through the tube into the intestinal canal, and carried just below the opening of the pancreatic duct. The bulb is then slowly distended with warm water, and the intestine is thus entirely occluded, and all fluids prevented from passing from above downwards. Another similar bulb is then passed down the intestine for about twelve inches, and distended, and the portion of the intestine between the two, communicating with the canula, washed out with distilled water. The dog is then supported by straps around his body, which only restrain him when he attempts to move, and the secretion which flows from the tube is caught in a funnel and collected. In this manner, from twenty to forty cubic centimetres of intestinal juice, absolutely free from pancreatic juice and bile, as shown by the chlorine and Gmelin's tests, can be collected in an hour, while by Thiry's method only a few drops are to be obtained.

Dr. Smith finds that intestinal juice thus collected has an invariably alkaline reaction, with a specific gravity of 1018, is pale yellow in color, and filters with difficulty. Analysis shows that in one hundred parts of the filtered juice there are:

Water	98.86000
Albumen, Ferments, Mucin,	.54756
Chlorides of Sodium, Magnesium, and Potassium, Sulphates and Carbonates of Sodium and Potassium, Carbonate of Calcium	.59710
	99.99971

Two ferments have been isolated, one converting starch into sugar, and the other changing cane-sugar into grape-sugar.

Dr. Smith is making a thorough study of the chemical composition of the secretion thus collected, and the digestive action of its ferments, and his results promise to be most interesting and valuable, and to throw some positive information on this obscure subject.—*Penn. Monthly*, April, 1882.

How shall we Name the Unctuous Principle Derived from Petroleum?—Although the fatty mixture of paraffin obtained from petroleum, and most commonly known by the trade name of "vaseline," has some opponents in the medical fraternity, it, nevertheless, has found so much favor, on the whole, with the practitioner and the pharmacist alike, that it cannot consistently be any longer ignored by our national Pharmacopœia. The valuable properties of this newly introduced article are so well and generally known that we need not dwell on them at present, but we desire to say a word about the name by which this substance should be officially recognized. It has been urged that, because the manufacturers place this article on the market as semi-proprietary and under copyrighted names, it should not be honored with a place in the Pharmacopœia. But such a demand is unreasonable. The pharmacist knows how "vaseline" can be made, if he cannot profitably manufacture it on a small scale; and physicians will not be debarred from prescribing it, whether "officially recognized" or not, so long as they find it serviceable. This mixture of paraffin is various-

ly known in commerce as: vaseline, cosmoline, terraline, ozokerine, fossiline, petrolina, etc., while such names as "unguentum petrolei," "ceratum petrolei" or "adeps mineralis" are being employed, more or less, as Latin synonyms. The first two names in the list are simply barbarous, and should be completely ostracized from the pharmacist's vocabulary, while "petrolina" is perhaps the most happily chosen appellation. "Unguentum or ceratum petrolei" and the other are unfortunate and untenable. Now, in a recent issue of our Philadelphia cotemporary, we find the following: "*Saxolinum* is the name selected by a sub-committee of the committee on revision of the United States Pharmacopœia to designate soft paraffin to be used in ointments, etc., similar to those preparations introduced as vaseline, cosmoline, petroline, etc. The word is derived from *saxum*, rock, and *oleum*, oil, and, though the article in question is not an oil, as this term is at present received in chemistry, the new word will probably be adopted by the committee." For the reason that the substance is not an oil, we do not like the term saxolinum. But there is another objection. The desinence *inum*, English *ine*, is altogether too much abused at present. If we are obliged to submit to such horrible Americanisms as "cherrine," "iratine," "coaline," and others too numerous to mention, pharmacists, at least, should endeavor to adhere to certain intelligible rules, the rule in this case being that the ending *ine* indicates an alkaloidal principle, or more correctly speaking, *ine* ending the names of vegetable alkaline principles, and *in* ending those of all neutral vegetable principles.

And then, the ointment being already termed an "oline," what shall thereafter be done with the liquid paraffine, the oil? But since it is eminently desirable that the name should not only be distinctively and easily pronounced, but indicative of the origin and nature of the thing, we take the liberty to recommend a term, original, and which fulfills the above requirements, to wit: *Petrolardum*. Here we have *petrol*, indicating the source, and *lardum*, the Latin for lard, fat. If something more euphonious is desired, the Greek word *larinos*, fatty, might be substituted, when *petrolarinum* would result.

To the purified paraffin oil we would give the name *petroleol.*—*The Pharmacist and Chemist*, May, 1881.

THE ABORTIVE TREATMENT OF FELON WITH COPAL VARNISH.—About a year ago, I met by chance a burly colored brother in a drug store; one of his hands was enveloped in flannel bandages of enormous dimensions, while his countenance and his groans betokened an intense degree of physical suffering. He volunteered the information that a regular physician to whom he had applied had pronounced him the subject of a deep-seated felon of the palm of the hand, and had proposed an incision through the inflamed tissues. Before submitting to incision, however, he intended to test the virtues of a prescription recommended by a sage of his own race; one who made plane surfaces, or the souls of sinners white, as exigencies demanded. The remedial agent advised was copal varnish. Flannel bandages were to be saturated with this, the affected part enwrapped therein, and dry flannel envelopes externally were to complete the dressing.

Three days thereafter I again saw the same individual carrying a hod. He wore a triumphant expression, and the previously bandaged member was bare, and, to all appearances, normal. He said that within a few hours after the application of the varnish, the pain ceased, and the swelling and heat rapidly reduced. I made mention of the case to the physician who was reported to have been consulted. He stated that when he saw the hand there was a severe phlegmonous inflammation, the member was swollen to apparently twice its natural size, and that, in all respects it resembled whitlow of the palm in the acute stage.

Notwithstanding the rather remarkable resolution in this instance, my anticipations from the employment of copal varnish in prospective cases of felon were by no means sanguine. The cogent influences leading to a trial of it, were that it was simple and harmless, and that it would serve to satisfy patients that something was being done for them fully as well as anything else, while it could not be inferior to any plan of treatment in vogue, short of free incision.

Since the observation above detailed, thirteen (13) cases of whitlow have been presented to me for treatment. In six of these cases a formation of pus having already occurred, they were not deemed fit for the trial of the varnish, and incision was resorted to. In the other seven cases the varnish was the only agent used. The terminal phalanx of the thumb was the part involved in two; that of the index-finger in five cases. In all there was swelling, redness, heat, and great pain; in one a vivid erysipelatous blush extending over the thumb, wrist, and extensor surface of the forearm; in two cases there was apparently a combination of what is popularly called "run-around," with felon of the flexor digital surface, about and near the point. Perhaps in none was the periosteum involved, though several did not differ from cases I have seen in the acute stage, where necrosis and extrusion of the terminal phalanx subsequently took place. In all the seven cases to which the varnish was applied, there was a rapid subsidence of the inflammatory process and its accompaniments, and by the second or third day, the parts were perfectly normal.

If the varnish upon the dressings become unpleasantly hard by drying, it may be softened by adding fresh material from time to time. Its removal may be easily accomplished when found desirable, by rubbing in lard, and then washing in soap and water. No good can be expected of this treatment, except possibly to relieve pain, after suppuration has ensued, since it is a cardinal axiom in surgery that, where pus is formed, it must have exit.—A. B. Isham, M. D., in *Philadelphia Medical News*.

FELONS.—In a clinical lecture on whitlow (Medical Times and Gazette), Mr. Heath says that the subject is meagrely treated of in the text-books. If met with in the earliest stages, when the finger has just begun to redden and tingle, a 20-grain solution of nitrate of silver, or the silver stick wetted and lightly penciled over the affected part and a little beyond, checks it at once. When the whitlow is a little more severe—that is, when pus forms about the nail or the tip of the finger—the cuticle, which is insensitive, may be incised. Occasionally, however, when a foreign body has found its way beneath the nail, pus forms there and gives rise to excruciating agony from the tension beneath unyielding structures. Judicious cutting of the nail will relieve this if near the margin; but if near to the base, it is much better to pare down through the nail with a sharp knife until the matter is let out, than to resort to the unnecessary cruelty of removing the entire nail.

The third kind of whitlow is really an acute necrosis of the terminal phalanx, following periostitis and suppuration beneath the periosteum, just as it does in the case of a long bone. A very slight injury—the prick of a needle or pin—may set it up. After some hours' uneasiness, the pain becomes acute and throbbing, and entirely prevents the patient sleeping. If timely relief is not given, pus will very slowly make its way to the surface of the finger, but never up the sheath of the ten-

dons, and, when discharged, will leave the greatest part of the phalanx bare and dead behind it. A timely and free incision is the only mode of saving the phalanx, and cannot be resorted to too early; for, if no pus be present, the inflamed periosteum will still be divided with great relief to suffering. The finger should be held firmly on a table, and the surgeon, entering his knife just above the transverse interphalangeal mark in the skin, should cut boldly down to the bone in its whole length from base to apex. When, as so often happens, these cases have been treated domestically with "soap and sugar" and poulticing until the end of the finger is riddled with sinuses, there is nothing to be done except to extract the necrosed phalanx as soon as it is loose, and to bring the finger into shape by careful plaster-dressing applied in strips. The base of the phalanx usually survives, giving a point of attachment to the tendons.

Inflammation of the skin and subcutaneous tissues may occur in any part of the finger. Incisions must here be made with care, so as not to open the theca of sheaths of the tendons, which then invariably slough, and the patient is left with a useless finger. For this reason incisions on each side of the finger are safer than one in the center, that may unawares let out the tendons, which will look perfectly healthy at the moment, but soon become soddened and softened.

The synovial sheaths of the flexor tendons of the thumb are often, though not always, in direct communication with the synovial membrane of the annular ligament of the wrist, and hence pus is rapidly conducted in this way up to, and, if not relieved, into the forearm.—*Canada Med. Record.*

A Little Plain Talk.—Doctor, please take a seat while we tell you our views on the position of the physician to the pharmacist. We both know that for several years patent medicines have been looked upon as an objectionable feature to both professions; that each one of the professions have, as a body, set their seal of condemnation upon patent medicines; that during this time some of the pharmacists have removed from public sight all patent medicines, many others have removed all advertising cards from their stores, and in each case the testimony of the pharmacist so doing has been that he has received no word of thanks from any physician or a single word of encouragement. It is to be remembered that these things have been done for your benefit and at his expense as a business man.

This would be but a small part of his burden were you to do your share; but he finds you at times prescribing these same patent medicines, and almost all your prescriptions bear the imprint of some one or more of these trade-marked articles, which might well be characterized as the half-brother of patent medicines. They are born of the same mother, and inherit the same blood corruption.

See for a moment the position you place the pharmacist in. You force him to purchase these remedies. After trying a small quantity and finding it worthless, you discard its use and leave your brother with the balance on hand as worthless stock, which he must throw away or do some counter prescribing to dispose of.

Many of the trials to the physician and pharmacist arise solely from these patent or trade-marked preparations. By your help these preparations have grown in number; and as their number has increased, in the same proportion have their demands and encroachments upon the province of the physician increased.

It is a fact that you are prescribing many articles which are so nearly allied to the rankest nostrum that it would tax your ability to define the difference, and to manufacture which the pharmacist, however well informed and competent he may be, is denied the right. Your medical journal tells you this is to preserve the virgin purity of the preparation. If this is true, then trade-mark the fluid extracts, tinctures, syrups and chemicals, in order that their purity may be secured. This might be a good way to show you how fictitious a price is set upon the trade-marked preparations as compared to their real value in an open market, and this advanced price you force your patients to pay.

Let us, for the time being, lose sight of the risk to the patient and public, of the risk to your business, of the risk to true pharmacy, and see if, in justice to the pharmacist, you ought not, as a body, to relieve him of all restraint in his dealing in patent and proprietary medicines, or else give him that support which will in some degree repay him for the loss which he sustains in his fidelity to your interests.

You hold him now, by his fidelity to you, as between two millstones—the upper one, the loss of that profit which is justly his by making the preparation himself which you prescribe, or purchasing them in an open market; the nether stone, the loss in sales of patent medicines and trade-marked articles, which could be greatly increased were he free to act as a merchant and not as your friend and co-laborer.

This question must be settled one way or another, and that before long.

The pharmacist of to-day feels it to be a burden to be denied the right to sell patent or trade-marked medicines, and then not receive the support of the physician who lays this burden upon him.—*The Pharmacist, May*, 1882.

The Physiological and Therapeutical Action of Ergot.—In the March number of the New York Medical Journal and Obstetrical Review, Dr. Etienne Evetzky, of New York, concludes the publication of his Joseph Mather Smith prize essay on ergot. Although dealing mainly with the physiological and therapeutical actions of the drug, the author gives a comprehensive account of the history of the different varieties of ergot their botanical relation, their microscopical structure, and their chemical composition; the methods of their production, collection, preservation, and preparation for medical use; the relation of ergot to other remedies, etc. In comparing the action of ergot with that of a number of other excito-motors of the organic muscular tissue, an arbitrary group of which, the author thinks, ergot may be taken as the typical representative, he remarks that strychnia is more closely allied to ergot in its effects, the main difference being that strychnia acts with far greater energy on the spinal motor centres of the voluntary muscular tissue. Digitalis is ditinguished by its predominant stimulating action on the heart. The chief difference between the action of ergot and that of Calabar bean lies in the early occurrence of a paretic state of the voluntary motor apparatus after doses of the latter drug that are not quite toxic. Atropia and nitrite of amyl are mentioned as antagonistic to ergot. For hypodermic administrations we may use the extract, the fluid extract, or sclerotic acid, diluted in water, with or without the addition of glycerine or alcohol, which latter substances, the author thinks, do not improve the solution in the least. The solution should always be clear and not too old, and should be made somewhat alkaline if the injections are particularly painful. The solution should invariably be injected into the muscular tissue, and it is well to begin with small doses. The therapeutical applications of ergot are considered under five heads:

1. Disorders of the circulation and diseases of the organs of circulation.

2. Paretic conditions of the organs composed of organic muscular tissue, the circulatory system excepted.

3. Inflammatory and other morbid enlargements and growths.

4. Abnormal secretions.

5. Symptoms referable to the nervous system, and depending chiefly upon circulatory disorders within it. In regard to the use of ergot, it should be used with extreme caution in patients with an enfeebled heart. Pregnancy is not an absolute contraindication. The use of the drug should be suspended during menstruation, unless it is given for some special condition of that function. To avoid disturbing the digestion it is best to give the drug by the rectum or hypodermically. The remainder of the article deals with the special diseases in which ergot seems capable of effecting good results.—*American Medical Weekly*, April 1, 1882.

Treatment of Indigestion and Heartburn.—For the purpose of whetting the appetite and thus acting reflexly on the gastric secretion, we employ the class of agents known as bitters. To these we add hydrochloric acid. Ringer has pointed out how an alkali taken into the stomach before a meal, when the stomach is alkaline, produces a freer flow of acid afterwards. Consequently we comprehend the value of that well-known preparation indifferently termed "Haust. Stomach.,"* or "Mist. Rhei et Gentian.,"† in the various hospitals; a combination of world-wide fame. Such a mixture before meals, followed by ten drops of hydrochloric acid after the meal, will often make the difference betwixt imperfect digestion, producing discomfort, and digestion so perfect that it does not provoke consciousness. Or where there is much irritability in the stomach, *i. e.*, when a bare, red tongue imperfectly covered with epithelium suggests a like condition of the internal coat of the stomach, then bismuth is most soothing. The mixture of soda, bismuth and calumba is in use for such digestion with good results. The dietary in such a case should consist of the blandest food, milk with or without baked flour in it, beef tea with baked flour; nothing more till an improved condition of the tongue tells of a more normal condition of the stomach. In such cases a plain opium pill at bedtime often soothes the stomach very nicely. Then there are cases where imperfect digestion is accompanied by the production of fatty acids, butyric and others, which add the phenomenon of "heartburn" to the symptoms; or there may be later products formed which cause the bitter, hot taste in the mouth on awakening in the morning, or after a post-prandial nap. It is usual to treat "heartburn" by an exhibition of an alkali; but this is not good practice. In union with an alkali the offending matter is nearly as objectionable as in the form of free acid. It is much better to give a mineral acid, as the hydrochloric or phosphoric, which breaks up the feebler organic acid. By such means we can aid the digestive act. Then at other times the indigestion is due to lithiasis, where the presence of uric acid impairs the efficiency of the gastric juice. In these cases all measures which do not entertain the casual relations of the dyspepsia are of little use. By administration of potash in a bitter infusion, well diluted, taken half an hour before a meal, this element of trouble is removed. In all cases of gouty persons suffering from dyspepsia, do not forget this cause of impairment of the gastric juice. —Dr. J. Milner Fothergill, in *Practitioner.—Ohio Med. Journal*, April, 1882.

*"Haust. Stomach.," formula, used in St. Thom. Hosp.: Rhubarb, bruised, 25 grains; Bicarb. of Sodium, 3 drachms; Gentian (sliced) 1½ drachms; Ginger (bruised) 20 grains; Distilled water (cold) 1 pint. Digest for 14 or 15 hours, with occasional agitation, then strain the decanted and expressed liquor and keep in a cool place.—Eds. Journal.

†Formula for "Mist Rhei et Gentian.": Rhubarb, Gentian and Orange Peel, of each, 3 drms.; boiling water, 2½ pints; macerate for an hour and strain; then add Bicarbonate of Soda; 1½ j Aromatic Spirit of Ammonia, 1 oz.; Spirit of Caraway, ½ oz.—Eds. Journal.

Local Therapy of Variola Vera.—Dr. A. Kupferschmied, of Murzzuschlag, in the recent epidemic, in Vienna, employed with gratifying success the following local treatment for the facial exanthem: As soon as the facial eruption had reached the pustular state, a mask cut out of guttapercha paper was covered with four or five layers of iodoform gauze, well saturated with glycerine, and applied to the face. The 50 per cent. iodoform gauze is selected, so that the penetrating odor of the drug shall combat that of the disease. Ordinary gauze may be used instead, if iodoform is disagreeable to the patient.

The following advantages are claimed for this method of treatment:

1. It surpasses other methods of smearing the face, in cleanliness, and therefore in healthfulness.

2. It macerates the pustules, exercises a favorable influence upon the collateral œdema, and cuts short the following stage: The stage of suppuration and of crust formation, which is the most troublesome and disgusting to the patient's attendants, is effectively abbreviated by this therapy. "I was often astonished," says the doctor, "to find under the mask no trace of those dirty, brown scabs which usually form under every other method of treatment."

3. The loss of the skin-substance is minimal.

Dr. Hans Hebra, who has achieved great local celebrity in treatment of variola vera, bases his treatment upon the early removal of the covering of the pustule, causing, by this means, drying of the contents, and preventing resorption of pus. His purpose is carried into execution (1) by the employment of the continued bath from the first day of fever; (2) by more gradual maceration. The latter method is more extensively used in private practice, as there is a prejudice against the continued bath.

In this method, the patient in the morning is well soaped and rubbed, and remains in an ordinary bath one hour. He is then enveloped in sheets, kept saturated with water until the next morning, when he takes another bath. The same general plan is employed for the facial exanthem. Prolonged maceration, with any innocuous ointment, as soon as the first efflorescence appears, with intent to prevent separated efflorescences, is practiced. Usually, unguentum diachyli is used.—*Medical News*, April, 1882.

The Sphygmograph.—The London Lancet, in an editorial plea for the more general use of the sphygmograph in private practice, thus well describes its merits. The height of the up-stroke made by the needle depends on conditions and methods of applying the instrument which deprive it of any significance, but its direction, whether oblique or vertical, in relation to the rapidity of the movement of the paper, is of great suggestive moment. If the contraction of the left verticle be free and the distribution of blood through the arterial system be unimpeded, the up-stroke will rise nearly at a right angle to the base line of the paper. If the impulse communicated to the blood-current by the heart be weak, or the vessels be rigid, so that they dilate slowly, the up-strokes will be oblique. Again, if the vessels be in a normal state and free, the down-stroke will commence with a sharp recoil at the instant of the subsidence or expiration of the force of the heart's action, as shown by the up-stroke. The juncture of the up-stroke and the down-stroke will therefore be acute. The rapidity of the fall shows the state of the vessels, as regards their rigidity. The contraction of the vessel, which is a reaction upon the dilatation effected by the impulse communicated to the blood-current by the heart, produces a second rise, generally half-way along the down-stroke. This rise, which marks the arterial element of the pulse phenomenon, bears a relation

to the up-stroke which is not affected by the mode of applying the instrument, and it is, therefore, of great value. The chief points of practical value which the sphygmograph shows, may therefore be enumerated as follows: The force and freedom of the ventricular impulse in relation to the state of the arteries; the condition of the coats of the arteries in relation to the question of their rigidity and elasticity; the condition of the muscular coats of the arteries as indicated by the power of contraction possessed by the vessels and their excitability, as evidenced by the quickness and extent of their contraction as a reaction on the impression produced by the heart's action. This contraction is a true reflex acting through and in the vaso-motor system. The question of blood-tension is also, as it were, raised, and partially, though not fully, discussed by the behavior of the needle of the sphygmograph. Enough, therefore, may clearly be learned by the use of the instrument to render it of high practical value even to the busy practitioner, and it is of interest to the progress of our art that it should be generally employed. The discredit into which it has fallen has resulted from the not unnatural enthusiasm of its introducers, who made too much of it, and exaggerated the importance, while they misconstrued the nature, of the lessons it has to teach, and the aid which, when rightly used, it can render.—*Med. & Surg. Reporter*, April 8, 1882.

Treatment of Chorea.—At the end of a paper on chorea, based upon an experience of one hundred cases (British Medical Journal, vol. ii., 1881, p. 145), Dr. William Strange speaks of the treatment, saying that the changes must be rung on the so-called nervine tonics, varying them according to the temperament of the child or to the collateral symptoms accompanying the choreic movements. If pallor, palpitations, and loss of weight exist, iron or arsenic, or both, will be necessary. If, on the contrary, the vascular system be sufficiently full and the motile element prevail, then the bromides with ammonia, or the succus conii, will be of most avail. Frequently whatever the condition of the vascular system and of the general nutrition, no good arrives until we have succeeded, by sedatives, in calming the excessive mobility of the nervous system. In these cases Dr. Strange has used the ice-bag to the spine and the ether spray to the nape of the neck, but not with much success. Direct calmatives—digitalis, belladonna, cannabis indica, with the bromides—answer the best.

The nervous symptoms once quieted, iron or arsenic may now be given, and carried to a somewhat high degree. Some have recommended large doses of arsenic, ten to fifteen minims of Fowler's solution; but Dr. Strange has seldom found that the stomach will tolerate these large doses, and has contented himself with much smaller ones, in combination with iron or zinc.

But, whatever the remedy selected, it will be necessary to continue its administration until it has produced its special physiological effect. Especially is this necessary with the neurotic sedatives. Children bear large doses of belladonna and conium; and Dr. Strange has never found this class of remedies do much good until their full physiological effects (consistent with safety) have been produced.

Dr. Strange used some years ago to treat all his cases of chorea with wine alone, the port wine of the hospital, merely clearing out the primæ viæ, to make sure that trouble was not caused by entozoa or depraved alvine secretions. The amount given was three to six ounces daily, and all the cases got well. After suspending this treatment for some years, he has reeently recommenced it with good results.—*The Canada Medical Record*, April, 1882.

Treatment of Epilepsy.—M. Ball, the present professor of mental diseases at the Paris School of Medicine, considers that the drugs most used in epilepsy prove much more efficacious when taken in combination with each other, than when one of them is administered singly. The alkaline bromides particularly the bromide of ammonium, with belladonna and oxide of zinc, form the basis of treatment.

The following solution may be given, in tablespoonful doses:—

℞ Ammonii bromid., ʒ iiss.
Sodii bromid., ʒ iiss.
Aqua destil., f ℥ x. M.

At the commencement of treatment four tablespoonfuls of this solution may be taken during the day, and the dose increased to eight or ten tablespoonfuls if no appreciable effect is noticed after a few days.

Belladonna and oxide of zinc are administered in pill form, as follows:—

℞ Ext. belladonnæ, gr. xv.
Zinci oxid., gr. xv. M.

Ft. pil. xl.

Sig.—One pill may be taken in the morning, another in the evening, at first; then the dose may be increased to four pills per diem.

If any degree of plethora exists the drastic purgatives should be resorted to, and in some cases benefit is obtained from a general bleeding, or the application of leeches to the temples or behind the ears.

M. Ball gives the following formula for drastic pills:—

℞ Aloes, gr. xv.
Scammon. resin, gr. viiss.
Jalapæ resin, gr. viiss.
Calomel., gr. viiss.
Saponis medic., q. s. M.

Ft. pil. xxiv.

Sig.—These pills are to be taken once a week, three in the morning and as many more about noonday.

What is of importance to notice is the immediate beneficial effect of this combined treatment; this is sometimes remarked on the second day.

This method, like all other forms of treatment of epilepsy, should be continued for a long period, and should not be suddenly stopped; the doses should be progressively and slowly diminished when it is considered safe to lay aside the treatment.—*Med. and Surgical Reporter.*

Protection to Trade-Marks.—One of the most discouraging features about the manufacture of reputable and honest merchandise at the present time is the absence of any adequate legal protection in trade-marks. This is a common complaint among manufacturers, who are wont to assert that it is well nigh impossible, under existing conditions, to place pure goods upon the market at a profit, or to maintain a reputable brand or trade-mark in the face of the unscrupulous competition which confronts every such attempt. No sooner does an article rise into popularity by reason of its intrinsic excellence than a host of imitations immediately spring into existence, seeking to appropriate the trade of the genuine. No department of trade is exempt from the unscrupulous designs of the trade-mark counterfeiter or pirate. Let a meritorious article be placed on the market to-day, and the name, labels, style of decoration or printing will be promptly appropriated by some knavish concern, and a piratical competition relentlessly introduced. We are pleased to see that instances of these disgraceful practices are meeting with deserved punishment in the courts, but the penalty in nearly every case came only after a long, tedious, and costly litigation. The decision of the Federal Supreme Court, declaring unconstitutional

the trade-mark statutes, was a severe blow to honest manufacturers. It was at the time believed that the common law would still afford some degree of protection to trade-marks, but this hope has been, for the most part, disappointed. So difficult is it to procure a favorable verdict in the courts against this form of trade piracy, that manufacturers rarely care to undertake prosecutions. That a national law could be so framed as to assume full and just protection to reputable manufacturers in their trade-marks, while avoiding the constitutional objections of the former law, is perhaps not practicable, and special state enactments are therefore become a necessity. Under exsiting legal conditions there is presented the anomalous spectacle of a "strong" government guaranteeing to foreigners protection to their trade-marks in this country, while denying protection to its own citizens!—*The Druggist*, Feb., 1882.

What are Patent Medicines and what are not?—Where can this fine distinction be made? Pharmacists, as well as many physicians, fail to see a difference between the so-called patent medicines and trade-marked, copyrighted or proprietary medicines. No physician, so far as known, has attempted to define this difference.

If this system had suddenly shown the proportions it does now, a general cry of alarm would have been raised by the profession; but gradually it has grown and grasped, little by little, until now it is in its manhood, full of strength, and finds for its opponent a profession overcome by lethargy and dulled conception of its position; a medical and pharmaceutical press, some of whom admit that they dare not oppose this system for the reason that their very existence depends upon the advertisements of these medicines. Are such journals best able to represent the profession? Are such journals true to the best interests of the profession? We doubt if they are. We would much rather know them to be free to state what they believed, though that which was said was entirely wrong, than to see them influenced by advertising patronage.

Much that has been said against this patent and proprietary medicine system has been a direct attack upon the principle involved, striking at the very root of the evil, condemning the principle as dangerous and unprofessional, proofs of fraud being produced. (See Pharmacist, vols. 6, 7 and 8.)

Have the replies been of the same nature? On the contrary, they have in no case attempted to defend the system on the principle of right or honesty, but have resorted to threats of prosecution, withdrawal of patronage, and in some cases to writings that border on scurrility, which no one with self-respect cares to answer. Others ascribe selfish and sinister motives to those opposing this system, notwithstanding they had arguments before them to tax their time and brains.

That this system is an evil, no one questions; but that it may be eradicated will require the arising from the easy-go happy condition of the profession, and a refusal by the medical profession to indorse, countenance or prescribe any medicine which is secret in formula or exact composition.—*The Pharmacist*, May, 1882.

Physiological and Therapeutic Effects of Phosphorus.—The Revue Médicale states that M. Du Moulin recently read before the Medical Academy of Belgium some observations made on a case of poisoning by phosphorus, showing that the presence of this substance can be readily ascertained, notwithstanding the denials of the patient, and although but a small quantity may have been taken. The secretions revealed unexpected perturbations. Not only had the urine become icteric, but it was alkaline, and albuminous, and had, moreover, almost entirely parted with its earthy salts. Its density was reduced to 1.006, and the quantity of urea had fallen much below the normal. The urine also contained leucin and tyrosin. The stools were discolored (icteric) and mixed with blood. The perspiration was alkaline, as were also the matters vomited (these were a mixture of mucus and gastric juice). On the other hand, the saliva was strongly acid, but the laryngeal secretions had remained alkaline.

Essence of turpentine was given at different times and invariably thrown up as soon as taken. A chlorate of potash gargle was then given, to counteract the buccal inflammation, but the patient swallowed the greater part of the solution. Finding that considerable improvement appeared to follow and remembering that M. Huseman had recommended chlorate of potash in case of poisoning from phosphorus, the salt was continued, and in a few days the patient was convalescent.

Without positively asserting that this cure was due to chlorate of potash, M. DuMoulin believed that in similar cases it would be advisable to use this remedy, either alone or in combination with turpentine, should the patient be able to tolerate this latter.—*Med. and Surgical Reporter.*

The Composition of Corn Smut (Ustilago Maidis).—For some time past corn smut has been in limited use as an oxytocic, and a fluid extract from it has also been introduced. Recent analyses by Henry B Parsons, late of the United States Agricultural Department, show a considerable similarity between this drug and ergot, and seem also to show a close therapeutic analogy.

Mr. Parsons found 4.2 per cent. of fixed oil, a small quantity of volatile alkaline substance, having a peculiar musty or fish-like odor. This is not an ammonium salt and alkaloid, nor trimethylamine, but the amount obtained was too minute to allow its identification. Eighty-five per cent. alcohol extracted 9.84 per cent. of a chemically somewhat indifferent substance, having an acid reaction; and, after extraction with ether and alcohol, the drug yields 6.55 per cent. of its weight to water. This contains 5.5 per cent. (of the corn smut taken) of an albuminous substance, resembling the sclerotic acid of ergot. The remainder of the aqueous substance seems to be oxalic acid. On boiling the residue insoluble in alcohol, ether or water, with water containing one sixtieth of sulphuric acid, for several hours, the liquid reduced Fehling's solution in proportion equivalent to 12.87 per cent. of starch. As corn ergot contains no true organized starch, the author believes that these starch isomers may be a portion of the easily decomposed corn smut itself. A residue still remained, apparently equaling in weight more than half the original quantity of corn smut used, which he believes to correspond to the true fibre of an ordinary plant, with some admixture of extraneous woody matter contained in original sample of corn ergot.—*The Druggist*, April, 1882.

Treatment of Diphtheria.—In the British Medical Journal, Dr. H. Cripps Lawrence thus writes: The following combination of the glycerols of tannin and carbolic acid has proved itself, during a considerable experience of diphtheria and scarlet fever, a highly efficient application in my hands, viz:

℞ Glycerinæ acidi tannici, ℥ vij.
Glycerinæ acidi carbol., ℥ j.

M. In the application of glycerine as an absorbent, it is of practical importance that a small proportion of water should be added to it. In order to secure this, a sufficiency of glycerine should be placed in a saucer, and a throat brush dipped in water should first be stirred into the glycerine before applying it to the throat and

fauces. The combination above mentioned has been found practically the most efficient proportion for securing the necessary astringent and antiseptic results, without irritation. An application, twice or at most thrice, in the 24 hours, secures the utmost benefit the remedy affords. It is seldom that any additional local remedies are required, but it is wise to precede the application of the glycerole with gargling the fauces and washing out the mouth with a solution of permanganate of potash and water, and to use the sulphurous acid spray, the double advantage that follows being that the fauces are the better prepared to benefit from the glycerine, and that the safety of the practitioner is increased in the event of the patient expectorating any false membrane during the act of swabbing. To further increase the safety of the medical attendant, a glass screen placed between him and the patient will afford protection, without limiting the efficiency of the procedure.—*Med. and Surg. Reporter*, April, 1882.

Treatment of Scrofulous Ulcers of the Cornea.—This is a form of keratitis which often comes under the care of the general practitioner, and as injudicious treatment may lead to the formation of opaque cicatrices, the following recommendations regarding treatment, made by M. Dehenne in Le Progrès Médical, may prove of service:

1. Instill daily into the eye four or five drops of the following collyrium:

℞ Atropiæ sulphat (neutral), gr. j.
Aquæ destillat., f ʒ iiss.

M.

2. Abstain from every form of metallic collyrium, which often leave indelible marks, veritable metallic leucomata. Do not use any collyrium containing eserine, for affections of the cornea are frequently accompanied by iritis, and there would be danger of formation of posterior synechiæ.

3. Each evening insert between the eyelids, with a small camel's hair pencil, a portion, about as large as a pea, of the following unguent:

℞ Hydrarg. oxid. flav., gr. xv.
Ung. petrolei, ʒ ss.

M.

4. Apply four times daily over the eye compresses soaked in warm chamomile tea.

5. Administer a tablespoonful of cod-liver oil every morning.—*Med. and Surg. Reporter*, April, 1882.

Contributions to the Therapeutics of Diseases of Children.—Kormann has employed the apomorphin hydrochlor. puriss. as an expectorant in the various kinds of bronchial catarrh and catarrhal pneumonia to which children are subject, and finds that patients treated in this way are more rapidly cured than those who do not take apomorphin. The apomorphin was well borne and caused a solution of the solidified lung tissue in the cases of catarrhal pneumonia on one occasion in four, and on another in five days after the administration of the drug. Dr. Kormann gives to children under one year of age one milligram of apomorphin, and from this time up to the second year he increases the dose by half a milligram; after this he gives a milligram more for each year, so that at the age of fifteen a centigram can be ordered. Dr. Kormann has also employed the rubbing in of soft soap in the treatment of the indurated scrofulous glands of children. He orders one inunction of the soap daily, a teaspoonful to be rubbed in over the affected glands in the evening, the part to be washed the next morning. As soon as the skin over the glands becomes tender, a fresh spot is chosen. In the majority of cases the neck is selected first. The cure is rapid, the glands becoming reduced to their normal condition, while the strumous eczema at the same time disappears, together with, in one case, a consolidation at the apex of the lung.—*Deutsch. Med. Wochensch.; London Pract.; Louisville Med. News.*

Tinctura Ferri Perchloridi.—Dr. Reed states that a very elegant preparation of the drug may be made by the simple addition to it of a little alkaline citrate. For every drachm of the tincture add half a drachm of potassium citrate. The result is a liquid of a beautiful green color, quite free from the peculiar roughness of the iron. For a tablespoonful dose, containing 10 minims, the prescription may be written thus:

℞ Tinct. ferri perchlor., ʒ ij.
Potass. citratis, ʒ j.
Syrup limonis, ʒ iss.
Aquæ, ad ʒ vi.

—*Canada Med. and Surg. Journal.*

Olive Oil as an External Application in Diseases of the Chest.—Dr. Parker draws attention to the preference which Prof. Gieth, of Munich, gives to olive oil as a local application in those diseases of the chest in which counter-irritation is unnecessary. Prof. Gieth uses a double fold of common cotton cloth large enough to encircle the body; the cloth is thoroughly saturated with warm olive oil. This application is said to be very agreeable to the patient, whilst it softens the skin, and is absorbed to a greater or less extent, while at the same time it retains a steady amount of heat.—*Boston Med. and Surg. Journal.*

The Opposition to trade-marked pharmaceuticals do not take the position that they shall not be manufactured; their position is that if the manufacturers continue to hold the formula as a secret and use the only name by which the preparation is known, or prevent legitimate competition in its manufacture, then, doing this, they must not ask or obtain the support of the medical or pharmaceutical profession.—*The Druggist*, April, 1882.

We learn that an apothecary of Buffalo, New York, has been arrested and held to bail in the sum of two hundred dollars for dispensing syrup of Dover's powder prepared by himself. Comment upon this seems unnecessary.—*The Druggist*, April, 1882.

New Remedies.

Jaborandi.—As long as the "healing art" has been practiced we have been without a remedy which, when given internally, would induce as rapidly and as strong a diaphoresis as a drastic action of the bowels could be caused by medicinal means at our command. Certainly we could in many ways establish an increase in the function of the sweat follicles, but our materia medica did not enable us to induce always quickly a powerful action of the skin. In jaborandi we do not alone possess such a remedy, but by the hypodermic administration of its active principle, pilocarpia, we have the power to bring about, even during unconsciousness, an action of the skin that the best hot-air or steam bath would not be equally able to create. That a remedy so reliable and filling such a void in our materia medica should still be comparatively neglected by many members of our profession, as we know to be the case, we can only explain in this way: that nearly from the beginning of its introduction its use in cases of heart lesions was decried as too dangerous, while its main indication was often found in just such cases (as in

uræmia, in cases of morbus Brightii, with dilated hypertrophy), and while its other qualities (absorbing power, diuretic, etc.) were rarely mentioned, so that a distrust was produced against a remedy, the usefulness of which cannot be over-estimated.

We will try to overcome the wrong impression, which has gained too much ground already, by mentioning once more the different preparations of this valuable article and the usual mode of their administration, and by illustrating in a few instances the great merit of this new addition to our not over-burdened resources.

The best and most reliable preparations of jaborandi for the practicing physician are, either the jaborandi leaves in the form of powder, or a good fluid extract, or the active principle, pilocarpia. The first are used either unaltered, as powder, which is perhaps the least effective mode of administration, or in form of an infusion, in both of which cases the single dose ranges from about thirty to sixty grains of the powder. We would prefer to either, however, a good fluid extract, of which adults take half a drachm in a small cup of hot or cold water, every half an hour, until four doses are taken. But far prompter in its action is the active principle, pilocarpia, of which the muriate or nitrate alone are employed, and in our country almost exclusively the first. Pilocarpia is preferred by many, as it can be used hypodermically, and its effect is then even more certain and undoubtedly more rapid, and besides, it is of special value in cases of unconsciousness, when the patient cannot swallow, points which have induced many to employ pilocarpia alone, and never jaborandi. Internally pilocarpia is generally given to adults, in doses of 1-12 to 1-6 of a grain, and more, and hypodermically in doses of 1-16 to 1-6 of a grain; in children doses have to be proportionally decreased.

If jaborandi is given in form of powder, infusion, or as fluid extract (℥ss every half an hour), its peculiar effect usually sets in with the third or fourth dose; the internal administration of a sufficient dose of pilocarpia is mostly followed, within a half to one hour, by the expected result; while the characteristic phenomena of pilocarpia, if given hypodermically, will almost invariably show themselves from within ten to twenty minutes, though it may be safer not to repeat the dose, nor to follow it by a larger one than the first, till at least an hour has passed. The effect of the remedy, in the vast majority of cases, consists in a more or less intense salivation and the most profuse sweating. But this is not all; a freer and decidedly increased flow of urine usually is also observed, and naturally, as the capillary vessels at the periphery are unloaded, to a great extent, of their fluid contents, and of salts the latter carry along, a general stimulation of absorption takes place, and we find not seldom, as one of the results of pilocarpia, a more or less total disappearance of morbid products, the gradual absorption of which we perhaps for a long time before, had been uselessly trying to bring about by other so-called absorbing remedies. In a few exceptional cases the effects mentioned do not appear, and instead of them, only an excitement of the heart, a more or less violent flow of saliva, and a feeling of great exhaustion are noted. But there is almost no remedy for which some persons have not an idiosyncrasy, and besides, if, under proper precautions as stimulation and the avoidance of such experiments in cases of grave heart lesions, etc., the dose of pilocarpia is pushed as far as safety may permit, and frequently enough repeated, the results first described will, even in these exceptional cases, mostly be obtained. For the purpose of producing absorption, or a slightly but continuously increased action of the salivary glands, the skin or the kidneys, pilocarpia is often administered for a longer time, also in very small doses regularly three times a day.

If the effect of pilocarpia is watched, and the correct dose given, there is no danger in its administration. Even in cases of affections of the heart this remedy may be employed; if, however, the condition of the organ ceases to be compensating for the lesion, and especially if great dilatation exists, it is safer to make use of stimulation at the same time, and to note carefully the result of the treatment.

The indications for the use of jaborandi or pilocarpia are, therefore, clear. Whenever we wish to produce not only a profuse perspiration, but the latter as rapidly as possible, the hypodermic administration of pilocarpia is to be preferred. Certainly, we do not wish to offend our readers by mentioning the cases in which patients might need a "thorough sweat" within a short time, but we may draw the attention to a few special instances in which pilocarpia acted remarkably well. So, in uræmic comia, it will often, by the increased perspiration, not only relieve the blood of its superabundant urea, but re-establish the urinary secretion, while the same remedy has saved, many a time, the life of children, when in cases of the acute exanthemata the eruption was inducing dangerous brain symptoms, either by being too long delayed, or by the exanthem, having fully appeared already, suddenly "going back." While in some cases of acute articular rheumatism, pilocarpia, if early enough employed *i. e.*, while the joints are still stiff, but not as yet red and swollen, will often act like magic, and in other cases of the same disease rather do harm; its effect in acute anasarca (that form of dropsy which, occasionally, after a severe exposure to wet and cold, sets in suddenly with fever, and without the kidneys being necessarily implicated) will always be that of a specific; the œdema will disappear in less than an hour. Further, in cases of glaucoma, of pleuritic effusion, of phlegmasia alba dolens, this remedy has frequently stimulated absorption to such a degree that the cases proceeded favorably from the time of the administration of the pilocarpia, and the usual absorbents, which in the same cases before had uselessly been employed, seemed to act with renewed power. And here it is, especially, where in chronic cases the occasional administration of pilocarpia in doses sufficient to produce active perspiration is indicated: when we wish to bring about further absorption, and the action of our absorbents seems to flag; when the case has come to a disagreeable standstill. On account of the diaphoresis, pilocarpia requires great power of the heart for the time being, as a sufficient amount of blood has to be forced to the surface to permit the congested capillaries to unload so much of the watery portion of the body, and we have to be, therefore, very careful with the use of such a remedy in grave affections of the heart, or when the organ is seriously weakened, and counteract any debilitating influence by the stimulaneous employment of stimulants.

Our purpose is fulfilled, if we have encouraged a more frequent use of jaborandi, or of its active principle, muriate of pilocarpia, when active perspiration, a freer diuresis, or an increased action of the salivary glands, or increased absorption are wanted, and if we have been able to convince some reader that the remedy is by no means a dangerous one if administered according to its effect. In conclusion, we will only add, that the reported favorable action of pilocarpia in diphtheria has not been sufficiently proven as yet, and that the remedy is utterly useless if employed to start on a bald head a rich growth of hair; while almost every form of alopecia, if caused by illness, seems to be favorably influenced if the individual so affected is put under a course of minute doses of muriate of pilocarpia.—*Medical and Surgical Reporter*, April 1, 1882.

The Richmond Resolution at St. Paul.

ALTHOUGH the resolution covering the question of the relations of the profession to patents, trade-marks and copyrights, in so far as they apply to simples and compounds in medicine, and introduced at the meeting of the American Medical Association at Richmond, was not formally incorporated as an amendment to the Code of Ethics, at the recent meeting at St. Paul, its equivalent found expression in the report of the Judicial Council interpreting the spirit of the code and reaffirming the uncompromising antipathy of the true professional gentleman to the preparations and practices which have of late years sprung up through an abuse of existing codical provisions. While we have strongly advocated the adoption of the resolution as presented, our chief aim was not so much to gain our point in its formal incorporation into the Code, as to secure an official declaration from the profession touching the matter which it embraced. We are quite satisfied with the declaration in the report of the Judicial Council. This report, indeed, goes further in the direction in which the Richmond resolution aimed than did the resolution itself. The resolution sought to make a certain exercise of the patent right strictly ethical from a professional point of view. It recognized the fact that within certain limits the genius of the physician and of the pharmacist might be encouraged through the protection which the patent law throws around genius in all the divisions of inventive art, while it inveighs against the notorious abuses which have been generated and fostered under this salutary law. The Judicial Council has, however, not seen fit to make even this concession.

It is too much to hope that the most stringent of rules and regulations will work reform unless they are met by a proper conviction of their justice on the part of those for whose governance they are formulated. There are, doubtless, many who will still refuse to be bound by the purely professional spirit of the Code, notwithstanding the expression of the Judicial Council referred to. There is, however, a large and influential class who have thoughtlessly been led astray in the matter of trade-marked and copyrighted compounds, and who, yielding to the wily persuasiveness of travelling representatives and other influences, have added their names to the endorsement of preparations which do violence to all the professional principles and humane instincts embodied in the Code. These will be awakened to a sense of the impropriety of which they have been guilty, by the recent declaration at St. Paul, and we venture the opinion that hereafter "testimonials from prominent physicians" will less freely than of yore embellish the labels and wrappers of copyrighted nostrums.

NOTE.—The above was written on the basis of the report of the Judicial Council as it was actually and formally made. Having heard it intimated, however, that certain of the opponents of the resolution as introduced at Richmond were construing the report as a defeat of our position regarding it, we took occasion to personally interview certain prominent members of the Judicial Council on this special point. We received from them the assurance that any such construction as that indicated would be an unwarrantable perversion of the position of the Council in the matter; that they are uncompromising in their opposition to the abuses which the resolution condemns, but that they considered the points as already so well covered in the code as to render an amendment unnecessary.

F. E. S

The American Medical Association and Nostrums.

In regard to the resolution on the subject of patents, trade-marks, and copyrights, adopted by the section of materia medica, at the Richmond meeting of the American Medical Association, last year, and referred to the Judicial Council for their action at the annual meeting in St. Paul, just closed, a decision has been reached which reaffirms the position of the code of ethics as the expression of the sense of the association in this matter. It is therefore of interest to note the position of affairs under the code,—a position which has just been emphasized by the report of the judicial council.

For the code of ethics implicitly states that it is "derogatory to professional character for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret nostrum, whether it be the composition or exclusive property of himself or of others. For, if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and if mystery alone give it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice." It further states "also that it is reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them."

It has, however, been long apparent that the commands of the code in this relation have not been obeyed and as a consequence many abuses have crept in. Certificates without number attesting the efficacy of patent and secret remedies are boldly published in the press, secular and religious, and even medical journals are filled with the recommendations of articles of the kind, signed by the most prominent men in the profession. These facts have encouraged the patent medicine trade to put forth every energy to gain prestige and popularity through this means, and the evil has grown until patent medicines have largely supplanted legitimate pharmaceuticals, and the patent medicine trade has thus adroitly wrested from the apothecary his prerogatives of compounding medicines and very naturally he feels very bitter on the subject. It has reached the pass where the medical profession and patent medicine trade, have practically united against the pharmaceutical profession and the consequence is a very undesirable feeling between doctors and druggists. To this usurpation of the patent medicine trade is chargeable many of the broils of later years between the professions. The patent medicines to which we refer have been placed before the profession under the guise of pharmaceuticals, and many have been deceived thereby.

Recognizing the fact that a breach has been created, and is ever widening, between the physician and apothecaries by these things, and that pharmacy has severely suffered in consequence, attempt was made to stay the tide that threatens to engulf scientific pharmacy, and to this end was introduced the Richmond resolution, so-called, which has, during the past year, excited so much interest. Though condemning the patent medicine quackery, this resolution allowed more latitude that the code permits in the legitimate use of patents, trade-marks and copyrights. But it seems the time has not yet come when the medical profession will take a step recognizing patents of any kind.

The resolution as introduced at Richmond was rejected at St Paul for the sole reason that its provisions were not radical enough, and because it permitted the use of patents, and trade-marks under certain circumstances. The Judicial Council are utterly and everlastingly opposed to anything which shall lock up medicines or appliances from the free use of all, even for a limited time, and condemn secrecy in any form, as applied to medicine, and are in favor of non-secret, and open pharmacy.

They reaffirm it as unprofessional to give certificates to patents or secret remedies, and uphold the benificient provisions of the code which give to all equal rights to the manufacture of medicinal preparations.

F. E. S.

St. Paul, Minn., June 6, 1882.